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ABSTRACT

The state of the art in testing and teaching communicatively handicapped Hispanic children is examined in eight chapters organized into sections concerned with insights from research, a view of the present, and recommendations for the future. The three chapters of the first section summarize research related to the acquisition of English as a second language, the acquisition of Spanish as a first language, and the dialect/sociolinguistic features of Spanish spoken in California and the Southwest. The second section reviews 12 commonly used tests relevant to the assessment of limited English speaking/non-English speaking (LES/NES) children who may be eligible for language and speech special education services. It includes a descriptive review of each test's psychometric and psycholinguistic properties as well as its applications. The last section summarizes information gathered from the field regarding current practices in the treatment of communicatively handicapped LES/NES students from preschool to high school. Opinions of speech and language professionals are summarized. The handbook concludes with a set of short- and long-term recommendations spanning both research and practice. The nine short-term recommendations include developing an "identification-placement-exit framework" for student assessment, developing a set of personnel functions, and developing a resource bank of existing personnel knowledgeable about assessment and instruction of communicatively handicapped LES/NES students. Among eight long-term recommendations are the provision of support to organizations developing instruments needed to implement diagnostic systems for LES/NES students and development of program models for treating communicatively handicapped LES/NES students. (DB)

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TESTING AND TEACHING COMMUNICATIVELY HANDICAPPED HISPANIC CHILDREN

THE STATE OF THE ART IN 1980

Edited by

HEIDI DULAY
MARINA BURT
DENISE McKEON

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TESTING AND TEACHING COMMUNICATIVELY HANDICAPPED HISPANIC CHILDREN

STATE OF THE ART IN 1980

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Heidi Dulay, Marina Burt and Denise McKeon
San Francisco, California, October 31, 1980

PROJECT STAFF

Project Director:
Heidi Dulay
Bloomsbury West

Senior Advisor:
Marina Burt
Bloomsbury West

Researchers:
(in alphabetical order)

Audrey Buell
San Jose State University

Jerry R. Craddock
University of California at Berkeley

Stephen D. Krashen
University of Southern California

Denise McKeon
Bloomsbury West

Joe Pacheco
Oak Grove Unified School District

Rogelio Reyes
University of San Francisco

James T. Rodman
Bloomsbury West

Migdalia Romero de Ortiz
Hunter College of the City University of New York

Production Staff:
Maria Hyman
Bloomsbury West

Marta Galindo
Bloomsbury West

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CHAPTER 1

INTRODUCTION

Purpose

This handbook reviews the research and current practices relating to teaching and testing limited and non-English speaking children from Spanish language backgrounds, who are eligible for Severe Language Handicap and Language and Speech (SLH/LS) special education services.

The volume was designed to help language and speech professionals--therapists, clinicians, teachers, researchers and administrators--understand and, hopefully, begin to solve some of the problems school districts are facing in the education of handicapped children with limited English proficiency. This effort is intended as a first step in developing the procedures and materials that will meet specifications of Public Law 94-142 and California's Assembly Bill 1250.

Target Population

The 1979-80 census taken by the State Department of Education indicates that there are almost 300,000 limited-English speaking and non-English speaking (LES/NES) students enrolled in California public schools. Of these, the great majority -- 81.5% -- are Hispanic. Efforts to make some headway in improving the state of research and practice relating to communicatively handicapped LES/NES children have thus focused initially on Hispanic children. Hopefully, similar efforts for other language minority children will follow.

Issues and Problems

One of the major pitfalls in dealing with LES/NES children is misdiagnosis: labeling as handicapped children who are acquiring a second language normally, or the reverse, ignoring children with real handicaps in the belief that they are acquiring a second language. (Luetke, 1976; McLure, 1975; Dulay, Hernandez-Ch., & Burt, 1978; and Burt, Dulay & Hernandez-Ch., 1978). These problems are largely due to the lack of empirical information regarding normal bilingual development, and the complexity of the assessment task.

Clinicians and teachers who work with LES/NES SLH/LS children must determine the developmental status of two languages rather than just one. A disorder evidenced in one language does not necessarily carry over to the other. There is neurolinguistic evidence, for example, that bilinguals and polyglots exhibit different aphasic syndromes in the different languages they speak.

Albert & Obler (1978) report the case of a Hungarian born woman who lived in France, England, America and Israel, in that order. The earliest aphasic symptoms appeared in English but not in Hebrew. Subsequently, she was diagnosed as having Wernicke's aphasia in English and Broca's aphasia in Hebrew, with her Hungarian and French showing elements of both. Other cases of different aphasia symdromes in bilinguals' languages have also been reported (Silverberg & Gordon, 1979).

Recovery patterns in polyglot aphasics may also differ. In some cases, the first learned language recovers first (Dreifuss, 1961); in others the most familiar or most recently used language returns first (Halpern, 1941). In still other cases, affective or environmental factors seem to explain the order of recovery of languages (Krapf, 1957; Minkowski, 1963).

These findings point to the need to diagnose and treat each of a bilingual's languages. Absence of symptoms in one language may not necessarily mean that the functioning in the other is normal, nor that approaches to treatment should be the same.

Identifying delay or disorder in LES/NES children's English language development requires knowledge of English second language developmental norms, rather than those used for native English-speaking children. Since second language behavior differs from native language behavior, it is not unusual for the uninformed therapist to mistake normal second language behavior for evidence of a handicap.

Second language norms are not yet available in detailed or comprehensive scope although some basic information is available. Research on second language acquisition has begun to uncover the strategies that children employ in acquiring a second language. Natural sequences in children's second language acquisition have been established and error types described in a principled manner. We are also beginning to understand what factors influence the pace of second language acquisition in adults and in children (See Dulay, Burt and Krashen, in press, and Dulay, Hernandez, and Burt, 1978 for a review of these findings). More applied research must be conducted, however, to put such information to use in the identification of communicative disorders in LES/NES students.

Assessing Spanish superior LES/NES children in Spanish would to some extent eliminate the problem of distinguishing between second language learning behavior and symptoms of communicative disorders. Children who score adequately in Spanish could be assumed to be normal second language learners (of English), while those who also score poorly in Spanish would be candidates for special education. Some progress has already been made in this area. Several instruments have been developed in Spanish and efforts are underway to provide Spanish language training to school psychologists and language therapists.

Spanish language assessment is a complex matter. Spanish acquisition in the United States is significantly affected by social and attitudinal factors unique to Hispanic communities in the United States. Thus, testing and teaching procedures must be based on U.S. norms. Further, available research on first language acquisition in Spanish can, at present, only provide some limited information about the normal process of Spanish language development.

In the Southwest, Spanish speakers may use both standard and Southwest Spanish and/or a combination of English and Spanish. The assessment of handicapped LES/NES children must therefore take into consideration dialectal and sociolinguistic variation in Spanish in the state of California. Therapists must be able to differentiate dialect forms from delayed language development or other speech handicaps.

Current California regulations recognize the unique needs of LES/NES students. The regulations require assessment in the child's primary language to determine severe language disorders:

> An individual has a severe disorder of language when...the individual's score on culturally appropriate standardized tests or subtests of language assessment **in the primary language** and mode of communication falls lower than two standard deviations below the mean for the individual's mental age. (California Administrative Code (CAC), Title V, 3610(e)(1)(B); emphasis ours.)

With regard to other speech-language handicaps, the regulations state that:

> These impairments shall not be caused by an unfamiliarity with the English language or to a cultural difference. (CAC, Title V, 3610(f))

Complying with these regulations means providing handicapped LES/NES students appropriate services. The current gaps in knowledge and materials, coupled with an acute shortage of qualified bilingual SLH/LS personnel, make such an effort a major challenge to language researchers and educators. These problems also mean that full compliance with the regulations requires long term, well planned programs of research, development and training at both the state and local levels. We hope this handbook provides a step in that direction.

Organization of the Handbook

The first section in this handbook summarizes research related to the acquisition of English as a second language, the acquisition of Spanish as a first language, and the dialect/sociolinguistic features of Spanish spoken in California and the Southwest.

The second section of this handbook reviews twelve commonly used tests relevant to the assessment of LES/NES children who may be eligible for SLH/LS services. It includes a descriptive review of their psychometric and psycholinguistic properties, and their practical uses.

The next section of the handbook summarizes information gathered from the field regarding current practices in the treatment of communicatively handicapped LES/NES students from pre-school to high school. Opinions of speech and language professionals have also been solicited and summarized.

The handbook concludes with a set of short and long term recommendations spanning both research and practice. Bibliographic references are provided at the end of each chapter.

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CHAPTER 2

SECOND LANGUAGE ACQUISITION

Heidi Dulay and Marina Burt

This chapter describes the developmental regularities in the natural speech of second language (L_2) learners, with particular emphasis on English second language development. This knowledge assists speech and language specialists in distinguishing handicapped children from normally developing L_2 learners.

BASIC CONCEPTS AND MAJOR RESEARCH FINDINGS

Second language acquisition is the process of learning another language after the basics of the first have been acquired, at about five years of age or older. Sometimes researchers refer to this process as "**sequential language acquisition**" to differentiate it from "simultaneous or bilingual acquisition," where two languages are learned simultaneously from infancy.

Second language acquisition includes the learning of both **host** and **foreign** languages. A host language is one that is spoken in the region or country in which it is being learned. For example, English would be acquired as a host language by a Mexican child living in the United States, whereas it would be acquired as a foreign language if the child were living in Mexico. This distinction is important because a student's rate of learning and degree of mastery differs for host and foreign language environments. English, for example, is usually learned more easily and better in an English-speaking country (host environment) than in a non-English-speaking country (foreign environment).

Language acquisition is primarily a process of the learner's "**creative construction**" of the new language. Creative construction refers to the subconscious process by which language learners gradually organize the language they hear. The general form of the rules learners create is determined by innate mental mechanisms responsible for human language acquisition and use. Through contact with the new language, learners gradually refine their rules to incorporate more and more of the mature language system.

The learner's construction of linguistic rules is said to be creative because no native speaker of the target language--whether peer, parent, or teacher--uses many sentences of the kind produced regularly by children who are still learning the basic structures of the language. For example, utterances such as *No wipe finger* (Klima and Bellugi, 1966), *Where daddy go*? (Brown, 1973), *He say father buy him car* (Dulay and Burt, 1974a), or *I no scare ghost* (Hernandez-Chavez, 1972) are not typically produced by proficient native speakers of English, although they are typical of both first and second language learners.[1]

Such deviations from well formed sentences are not haphazard lapses of memory nor poor attempts at imitation. Rather, the occurence of systematic errors comprises "...the best evidence we have that the child possesses construction rules" (Brown, 1973).

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[1] In educational terminology creativity has a different meaning, which we mention here to prevent confusion. It refers to the independence of individuals from conventional behavior. "Creative thinking" often connotes an ability to produce solutions to problems and phrases that do not conform to what most people would be expected to produce. For example, using cooked rice as glue would be considered a creative use of rice.

The educational use of the term derives from the psychological work of J. P. Guilford (1967) and his colleagues on the structure of the intellect (see Wallach, 1970, for a literature review). Guilford defined creativity as "divergent thinking"--a cognitive process that involves coming up with many alternatives in response to a problem. For example, the task of naming as many uses of paper as possible taps divergent thinking skills. Someone who offered twenty uses of paper would be considered more creative than one who offered only five, and the less conventional the use, the more creative. In this sense of creativity, not everyone is creative.

Psycholinguistic creativity, on the other hand, is not the privilege of a select few who might be poets; it is characteristic of all normal speakers of any language. We have all internalized a system of rules that governs ordinary language use (Chomsky, 1965:6). The sentence *Peter flew to Reno last night* is very ordinary, yet in the linguistic sense it is creative because it was generated from the speaker's own linguistic rule system rather than as a result of having imitated and memorized it.

The creative construction model of language acquisition recognizes the independent contribution made by the learner to the language acquisition process. Language learning[2] is no longer seen as filling up the learner's (presumably empty) head with sentence patterns, vocabulary, etc. It is one in which the learner's mental mechanisms filter and organize the available linguistic input.

During the past decade, psycholinguists have made major discoveries regarding L_2 acquisition. Some have to do with L_2 learners' language characteristics, others with the L_2 learning environment, and still others with factors internal to the learner. We summarize them briefly here, then discuss them in greater detail throughout the chapter.

1. **Only a small percentage of the grammatical errors L_2 learners make can be traced to their first language. With the exception of pronunciation, most L_2 errors are similar to L_1 errors.** For several decades, linguists and teachers have assumed that most L_2 learner's errors resulted from differences between the first and second languages. This was the basis of the long-popular contrastive analysis theory. Now, researchers have learned that although the first language affects pronunciation, only about five percent of the grammatical errors children make and at most twenty percent of the ones adults make can be traced to crossover from the first language.

We are finding that L_2 learners use their first language knowledge to help, rather than hinder their use of the new language. Learners' first languages are no longer believed to interfere with their attempts to acquire second language grammar and language teachers no longer need to create special grammar lessons for students from each language background.

Instead, most L_2 learners' errors are the result of their creative attempts to deal with the new language. Thus, it is the structural characteristics of the second language, rather than those of the first language that shape the large majority of L_2 learners' errors.

2. **Certain grammatical structures are learned in a certain order by most L_2 learners.** Researchers have found that most people, whether their first language was Hindi or Spanish, acquire a working knowledge of certain structures in English in a

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[2] We use the terms "learning" and "acquisition" interchangeably, although they are sometimes used in the L_2 literature to distinguish between conscious and subconscious language development. The two words have been used interchangeably in most of the general psycholinguistic literature, and thus we follow suit. We will use the terms "conscious" and "subconscious" when the types of learning should be distinguished.

fairly set order. This natural learning order is observed regardless of the order in which the structures are presented in the language curriculum.

3. **L_2 learners use certain types of transitional constructions before they acquire complex structures.** Both children and adults from numerous first language backgrounds generally learn complex L_2 structures by progressing from bare bones to more sophisticated constructions. For example, in the earliest phase of acquiring English questions, learners use such constructions as *Who that?* Then they produce *Who that is?* and finally *Who's that?*. Linguistics researchers have found that these and other transitional constructions second language learners use are of a certain type and are produced by most L_2 learners no matter what their first language background.

4. **L_2 learners use some memorized phrases and sentences to help them function while they are still acquiring the rules of the new language.** People who have to function in a foreign language frequently begin by mastering a few useful phrases that make life easier. These are phrases like *Pass the salt, please. What's that? It's my turn*. Both children and adults learn and use such phrases, which are called "patterns" and "routines." The grammatical structures contained in routines and patterns have not usually been acquired by the L_2 learner. That is, the learner cannot use the rules underlying routines and patterns to generate other sentences.

5. **L_2 learners typically go through a silent period before they begin to produce the new language.** When children or adults are not forced to begin using the new language immediately, they typically go through a silent period, which may last from a few weeks to several months, before they begin to use the new language. This comprehension period appears to accelerate learning to **speak**, as well as to comprehend the new language.

6. **The most effective language learning environments provide natural communication with peers about "here-and-now" topics.** While some aspects of language may require conscious formal study, the acquisition of language for communication purposes is best accomplished in contexts where the learner is focused on **what** is being said rather than on how it should be said. Focusing on the message (as people do when conversing naturally) is apparently more beneficial than trying to learn grammar rules. In addition, concrete here-and-now topics and contact with peers who speak the new language fluently are also beneficial for language acquisition. Parroting activities, including most memorized dialogues and mechanical drills, appear to do little to encourage the development of fluent conversational skills.

7. **Several internal factors seem to guide L_2 acquisition:** a filter consisting of the learner's attitudes, motivation, and emotions; a subconscious organizer

of new language data; and a conscious **monitor** that may edit speech or writing.

When a student is exposed to a new language, the first internal hurdles that the incoming language encounters are posed by the individual's emotional state and motivations. Language learners, consciously or unconsciously, select only some representatives of the target language as models worth emulating. For example, a person who thinks American English is gauche will probably not learn as much English from Americans as a person who thinks American English is the best type of English to know in the modern world. (See also Milon, 1975; Labov, 1972; Stewart, 1964; and Benton, 1964 for research on model preferences in language learning). Other filtering sources are the individual's anxiety levels, peer identification, and general motivation in learning the language. Together, they make up what we have called the "affective filter" or simply "filter".

The filter acts to control entry to further mental processing. It contributes to: 1) individual preferences for certain input models over others, 2) prioritizing aspects of language to be learned, and 3) determining when language acquisition efforts should cease.

The importance of taking into account the possible effects of socio-affective filtering on learners' verbal performance cannot be overemphasized. When learner speech is not entirely consonant with that of the speakers to whom they are being compared, one may not simply assume that the discrepancy is the result of delayed or incorrect learning. It is entirely possible that because of certain sociolinguistic circumstances, the learner consciously or subconsciously prefers to acquire forms other than those used as the norm. This very important distinction between inability and preference must be made before it is justifiable to conclude that the learner's speech is the result of learning disabilities.

Once incoming language has passed through the filter, it reaches two other processors: the organizer and the monitor. As the mind begins to take in some of the second language, it organizes it in a fashion which results in the common order in which grammatical structures are learned, in the systematic errors that are made, and in the interim constructions learners use. This organization does not necessarily reflect the organization of the teaching curriculum and tends to be similar for most second language learners no matter what their first language is.

The organizer refers to the internal data-processing mechanisms responsible for the construction of the grammar we attribute to the learner. It is what Chomsky has referred to as the "Language Acquisition Device," and what others have called the "black box." It contributes, among other things, to: 1) the error types that occur systematically in developing speech, 2) the progression of rules that learners use before a structure is mastered, and 3) the order in which structures are acquired.

A third source of creative activity is the "monitor" (Krashen, 1977 & 1978a.), which may be defined as the conscious editing of one's own speech. The degree to which speech is edited depends upon individual criteria as well as the nature and focus of the task being performed.

People who have a high desire to communicate and who are not embarrassed by making mistakes use the monitor less than those who are more self-conscious.

These three processors are affected by the learner's **personality** traits and **age**, which inhibit or enhance their activity. For example, a learner with an outgoing personality may filter out less language than one who is less confident, or an adult may organize more of the language at once than a young child. Since research is scant and inconclusive in these areas we do not discuss them further. See, however, Naiman et al. (1975), Krashen (1978b), Ervin-Tripp (1974), Snow and Hoefnagel-Hohle (1978).

Figure 2-A on the preceding page illustrates how the factors involved in language acquisition work together.

The rest of this chapter presents in greater detail the characteristics of L_2 learners' developing language.

L_2 SYNTAX AND MORPHOLOGY

Three aspects of L_2 syntax and morphology are especially revealing of L_2 development: a) errors, b) transitional constructions, and c) acquisition sequences.

Errors

Most of the errors children make while acquiring a second language are creative. That is, they are the necessary result of the child's gradual organization of language heard. Most L_2 errors may be grouped into six categories (described in detail below) depending upon the strategy the learner used: (1) omission of grammatical morphemes, (2) use of archiforms, (3) alternation, (4) regularization, (5) double marking, and (6) misordering.

These are called **"surface strategy errors"** because they reflect the strategies learners use to reconstruct the surface structure of language they hear. The examples given below are taken from a study of over a hundred Keres-speaking Indian children learning English (Dulay, Burt, & McKeon, 1980).

1. Omission of grammatical morphemes. Grammatical morphemes are linguistic items that contribute little to the meaning of a sentence. They include noun and verb inflections (e.g. the plural -s in cats, the past tense marker in laughed); articles (e.g. a, the); and others. The L_2 learner's omission of grammatical morphemes seems to signal a priority on meaning rather than on the fineties of grammar. Following are examples of such omissions:

- Omission of irregular past: Pat sit on the cat.
- Omission of -ing: He's polish shoes.
- Omission of copula: This one a wild elephant.

2. **Archiforms.** An archiform error is the use of one member of a class of forms in place of several. For example:

- Archiuse of the accusative for both nominative and accusative pronouns: Them are going to town

An error is considered an archiform if there are at least three instances of the use of the given form in place of another or if there are no instances of the use of another form in at least 50 such errors across the children in the sample. (Burt, Dulay & McKeon, 1980).

3. **Alternation.** An alternation error consists of using two or more forms in random alternation even though the language requires the use of each only under certain conditions, as in the random use of he and she regardless of the gender of the person of interest. For example:

- Alternating prepositions: The boy has something on his hand and in the floor.
- Alternating count/mass: Too much dolls

4. **Regularization.**[3] A rule typically applies to a class of linguistic items, such as the class of main verbs or the class of nouns. In most languages, however, some members of a class are exceptions to the rule. For example, the verb eat does not become eated, but ate; or the noun sheep is also sheep in the plural, not sheeps.

Whenever there are both regular and irregular forms and constructions in a language, learners apply the rules used to produce the regular ones to those that are irregular, resulting in errors of regularization. Examples include:

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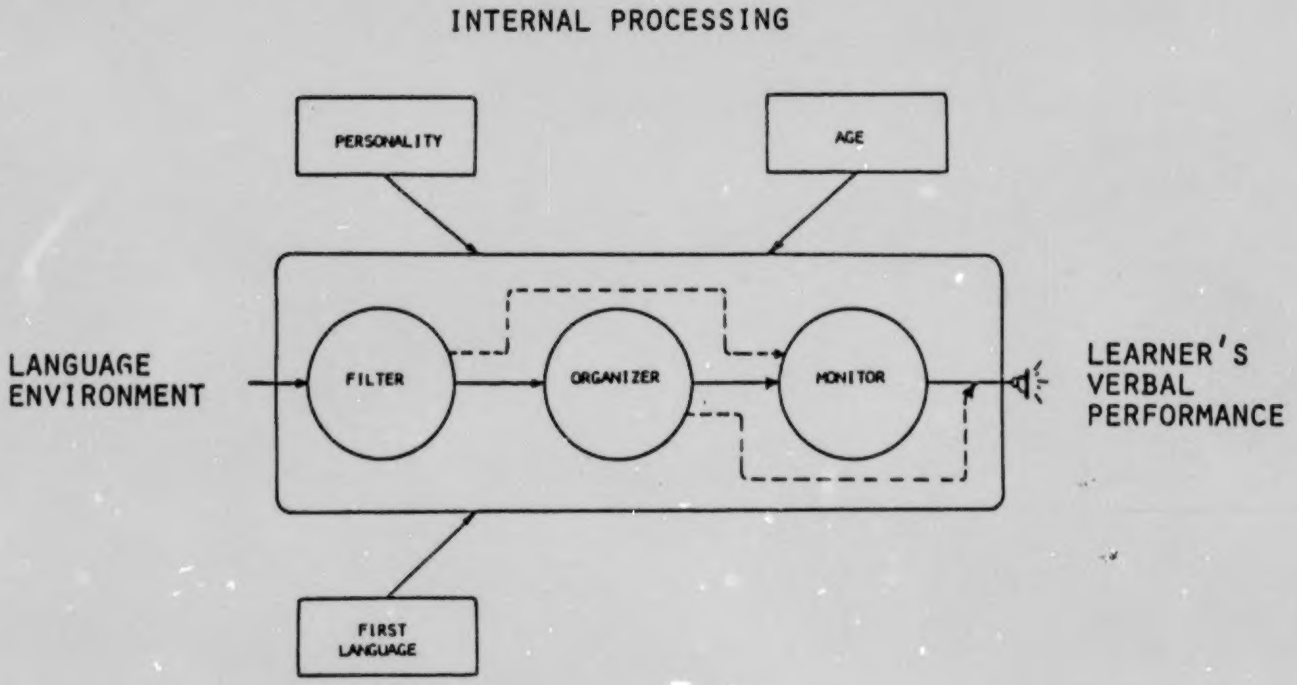
[3] "Regularization" is more narrowly defined than the more commonly used term "overgeneralization" which has been used to describe almost all developmental errors.

FIGURE 2-A. WORKING MODEL FOR CREATIVE CONSTRUCTION IN L_2 ACQUISITION



- Regularization of past tense: Before that mouse catched him.
- Regularization of reflexive: He's gonna stick hisself.
- Regularization of plural: I like to make potteries.

5. **Double Marking.** When a semantic feature such as negative is marked twice rather than once, we call the error a double marking. For example:

- Double negative: Nobody never feeds him.
- Double past: His nose toucheded it.

Like regularizations and alternations, double markings indicate that the child has learned certain linguistic rules but has not yet learned the constraints on applying the rules.

6. **Misordering.** As the term indicates, misordering errors involve the wrong arrangement of items in an utterance. Misordering errors rarely affect the basic word order of simple affirmative declarative sentences. They are found in direct and indirect questions and other constructions in which the order used by the learner is acceptable in other linguistic environments. For example:

- Misordered particle: He wakes up her.
- Misordered auxiliary: I don't know what is it.

These six types of errors also characterize the language produced by young children acquiring their first language. Comparisons of errors made by first and second language learners show that the great majority of L_1 and L_2 errors are similar (Burt et al 1980, and Dulay, Burt and Krashen, in press.) Table 2-1 lists examples of L_1 and L_2 errors by surface strategy error type.

The similarities observed in L_1 and L_2 error types do not imply, however, that all rules and resulting utterances are identical for first and second language learners. Second language learners at age 5, for example, are cognitively more mature than infants beginning to learn to talk. L_2 learners' knowledge of the world and level of conceptual organization is already quite advanced and there are qualitative differences in their approach to all sorts of learning. The L_2 learners also have had the experience of having learned a language once before.

TABLE 2-1. EQUIVALENT L_1 AND L_2 ERRORS ORGANIZED ACCORDING TO SURFACE STRATEGIES*

CLASSIFICATION	L_1 EXAMPLES	L_1 SOURCE	L_2 EXAMPLES
OMISSION OF GRAMMATICAL MORPHEMES			
article: the	$\overset{\text{The}}{\wedge}$ book drop.	Brown (1973) p.317	$\overset{\text{The}}{\wedge}$ cat go there.
short plural: -s	more cookie$\overset{\text{s}}{\wedge}$	Braine (1963) p.412	It's got some flower$\overset{\text{s}}{\wedge}$.
long plural: -es	I have two necklace$\overset{\text{/es/}}{\wedge}$.	Menyuk (1963)	Those two house$\overset{\text{/es/}}{\wedge}$
auxiliary: do, is/are	Man $\overset{\text{does}}{\wedge}$ no go in there.	Bloom (1970) p.160	I $\overset{\text{do}}{\wedge}$ no have it.
copula: is, am	This man $\overset{\text{is}}{\wedge}$ not brother.	Bloom (1970) p.196	I $\overset{\text{am}}{\wedge}$ sick.
progressive: -ing	I'm play$\overset{\text{ing}}{\wedge}$ with it.	Cazden (1972) p.38	A father is come$\overset{\text{ing}}{\wedge}$.
regular past tense: -ed	Book drop$\overset{\text{ped}}{\wedge}$.	Brown (1973) p.317	He close$\overset{\text{d}}{\wedge}$ it.**
irregular past tense: fell, came, ate	Good Beech $\underset{\wedge}{\overset{\text{fell}}{\text{fall}}}$ down.	Kahane, Kahane and Saporta (1971)	I $\underset{\wedge}{\overset{\text{fell}}{\text{fall}}}$ down the water.
third person singular	He $\underset{\wedge}{\overset{\text{es}}{\text{don't}}}$ fit in here.	Bloom (1970) p.212	He $\underset{\wedge}{\overset{\text{es}}{\text{don't}}}$ swim.
infinitive marker: to	I like $\overset{\text{to}}{\wedge}$ do it.	Menyuk (1969)	He don't like $\overset{\text{to}}{\wedge}$ eat.
DOUBLE MARKING			
present indicative	Joe doesn't likes it.	Ervin-Tripp (1964)	Bill doesn't likes it carrots.
regular past	I didn't spilled it.	Cazden (1972) p.46	Why didn't you came to school?
direct object	We took it away the hat.	Menyuk (1963)	Put it down card.

*All data taken from Venable (1974) except where marked with **, which are taken from Dulay and Burt's raw data.

TABLE 2-1. EQUIVALENT L_1 AND L_2 ERRORS ORGANIZED ACCORDING TO SURFACE STRATEGIES (Venable 1974)

CLASSIFICATION	L_1 EXAMPLES	L_1 SOURCE	L_2 EXAMPLES
REGULARIZATION			
reflexive pronoun	He's licking $\overset{\text{himself}}{\boxed{\text{hisself}}}$.	Menyuk (1963)	$\overset{\text{himself}}{\boxed{\text{hisself}}}$
regular past	$\overset{\text{fell}}{\boxed{\text{falled}}}$	Cazden (1972) p.45	I $\overset{\text{fell}}{\boxed{\text{falled}}}$
third person singular	got$\boxed{\text{s}}$	Cazden (1972) p.44	He got$\boxed{\text{s}}$ a flower.
ARCHIFORMS OR ALTERNATIONS			
auxiliary: does/is	What $\overset{\text{is}}{\boxed{\text{does}}}$ he putting on the top.	Harrison (1974)	He $\overset{\text{is}}{\boxed{\text{do}}}$n't looking.
prepositions: at/to on/in	Daddy took me $\overset{\text{to}}{\boxed{\text{at}}}$ the train.	Menyuk (1963)	$\overset{\text{on}}{\boxed{\text{in}}}$ the feet
subject pronoun: he/she	Mommy was so mad so $\overset{\text{she}}{\boxed{\text{he}}}$ spanked Blackey.	Menyuk (1963)	$\overset{\text{She}}{\boxed{\text{He}}}$ was not looking. The mother's over there and $\overset{\text{she's}}{\boxed{\text{he's}}}$ nervous.
possessive pronoun: she, she's/her, him's/his	$\overset{\text{her}}{\boxed{\text{she's}}}$	Cazden (1972) p.44	That's $\overset{\text{her}}{\boxed{\text{she's}}}$ house.
negative: no/not	Man $\overset{\text{not}}{\boxed{\text{no}}}$ go in there.	Bloom (1970) p.160	I $\overset{\text{not}}{\boxed{\text{no}}}$ have it
quantifiers	Put $\overset{\text{some}}{\boxed{\text{a}}}$ gas in.	Slobin (1971) p.8	$\overset{\text{some}}{\boxed{\text{a}}}$ water; $\overset{\text{some}}{\boxed{\text{two}}}$ milk
MISORDERING			
aux in simple question	What ↓ that $\boxed{\text{is}}$?	Menyuk (1963)	What ↓ this $\boxed{\text{is}}$?
aux in embedded question	I know what $\boxed{\text{is}}$ that ↓.	Menyuk (1969)	I know what $\boxed{\text{is}}$ that ↓.
adverb	I eat $\boxed{\text{sometimes}}$ candy ↓.	Menyuk (1969)	Is $\boxed{\text{here}}$ happy↓; is $\boxed{\text{there}}$ not happy↓.

Moreover, their acousticoarticulatory sytem is relatively highly developed, which, as we shall see later, has important consequences for L_2 phonological development.

We should therefore expect the use of some developing constructions that are more varied and, in some ways, more sophisticated than those used by L_1 learners. For example, L_2 learners tend to use several negators (no, not, don't and can't) in the earliest stage of learning negative constructions, while L_1 learners use only no or not. (Schumann, 1975).

Therefore, as we shall also see for acquisition orders, although the general creative characteristics are the same for L_2 and L_1 utterances, specific details differ, attesting to the differences in cognitive sophistication, affective focus, acousticoarticulatory ability, and experience.

A Note on L_1 "Interference". It is not uncommon to be told that L_2 learners will tend to use the structures of their first language when they attempt to speak a second language. Although this notion may seem intuitive--largely because of certain pronunciation and lexical differences observed in the speech of L_2 learners--the current research on children's acquisition of the syntax and morphology of a second language has not borne out the influence of the first language to anywhere near the extent previously thought.[4] Available research indicates that children do not generally rely on their knowledge of the surface structures of their L_1 to formulate L_2 utterances. Rather, they seem to treat the new language as an independent system, which they gradually reconstruct from the L_2 speech data they hear.

Modern L_2 research has demonstrated this repeatedly. It has shown that differences between L_1 and L_2 structures do not necessarily predict a child's L_2 errors; neither do children learn those L_2 structures that are similar in both languages earlier than those that are different. (See, for example, Price, 1968; Dulay and Burt, 1972 and 1974a, b; Hernandez-Chavez, 1972, 1977a, b; Ravem, 1974; Ervin-Tripp, 1974; Venable, 1974; Gillis and Weber, 1976.) These studies include samples of children from a variety of language backgrounds, including Spanish-, Chinese-, Japanese-, and Norwegian-speaking children learning English; and English-speaking children learning Welsh or French.

For example, Spanish-speaking children learning English as a second language do not tend to say The dog it ate (El perro se lo comio) even in the early stages of English acquisition; rather, they say Dog eat it, omitting grammatical morphemes as do children learning English as a first language. Likewise, although Spanish plurals are formed like English plurals (by adding *-s* or *-es* depending on the word ending) Spanish-speaking children learning English as L_2 still omit these endings during the early stages of English acquisition.

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[4] Borrowing and code switching, terms used to refer to the interactive use of a bilingual's two languages, should not be confused with L_1 interference phenomena. Borrowing and code switching are normal and pervasive linguistic behaviors. These are discussed in Chapter 4.

There are structures that are sometimes given as examples of Spanish transfer, e.g., *He no can play* or *the fat* (*for the fat man*). These constructions, however, have also been observed in the normal development of children learning English as their first language, for whom, of course, transfer from any other language is not a possible process. (For additional examples and further discussion of these topics, see Dulay and Burt, 1974a,b.)

Studies of adult foreign language learning have, on the other hand, reported that some 20-30% of the observed grammatical errors may be traced to the learner's native language. It is not clear however, what the source of those "interlingual" errors is. Research is beginning to show that such errors may *not* be due to interference of first language habits, rather external circumstances may induce the use of L_1 structures. Pressure on adult learners to speak the new language before they are ready may result in learners' use of word-for-word translation from their native language. In such circumstances, the use of the L_1 is an aid used consciously rather than an "interference" brought about by habit. (cf. Ervin-Tripp, 1974).

Interlingual errors are also induced by certain speech elicitation techniques. Timed translation tasks (where a student is asked to translate from the L_1 to the L_2 in a set amount of time) significantly increases interligual errors, (Lado, 1978). There may be other circumstances that researchers still need to pinpoint. It is becoming obvious, however, that first languge interference is not an automatic, unavoidable occurrence in the acquisition of L_2 grammar, although it does play a significant role in learning the pronunciation rules of the new language.

Transitional Constructions

Transitional constructions are the other side of errors. They are the language forms learners use while they are still learning the grammar of a language.[5] A student who is still learning English might say for example: *Why you no come*? or *Why you get mad*? or *Who you calling*? These imperfect sentences are transitional constructions -- indicators of the progress learners have made in deciphering and producing a new language system.

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[5] The term "developmental sequences" is used by Wode (1976) and his colleagues in Germany (Felix 1978a, 1980a, Meisel, 1980) to refer to transitional constructions and the orders in which they appear.

The studies that look at transitional constructions indicate that children and adults go through a number of predictable key steps before mastering a structure. For example, during the earliest stage of learning English negatives, a child might be heard saying

No sleeping or No play baseball.

After a while, these transitional constructions become

She no sleeping and I no play baseball.

And finally we hear

She is not sleeping and I don't play baseball.

Analysis of these and numerous similar kinds of sentences have made it possible for researchers to describe in some detail the intermediate steps involved in learning some basic second language structures.

Like the research on errors, much of the work in this aspect of second language acquisition has involved comparing the grammatical constructions used by L_2 learners with those made by young children acquiring their first language. The research conducted has again documented striking similarities between the transitional constructions produced by first and second language learners, although some differences were also noted. Second language learners appear to produce a wider variety of forms in one developmental phase than do L_1 learners (e.g. this and these rather than just this in the beginning), evidence of the greater mental sophistication of older second language learners.

Most of the studies that have been undertaken along these lines have looked at children learning a second language in a host country. The structure types studied so far include English negation, wh-questions yes/no questions, embedded wh-questions, and reflexive pronouns. The learners' first languages include Norwegian, Japanese, Spanish, Arabic, German and Keres. In addition to English, L_2 transitional constructions in German and French have been investigated. The major findings in Engish L_2 acquisition are presented below.

1. **Negation.** Basic sentence negation in English has been a popular research topic. It involves the rules underlying sentences such as He doesn't know my name or She is not a secretary.

Table 2-2 illustrates the development of English negation in first language acquisition (Klima and Bellugi, 1966), and in second language acquisition by children whose first languages include Spanish (Hernandez-Chavez, 1972), Japanese (Milon, 1974; Gillis and Weber, 1976), and Norwegian (Ravem, 1974). All the studies used as a data base the natural speech protocols of

TABLE 2-2. SOME INTERMEDIATE STEPS IN THE ACQUISITION OF NEGATION

FIRST LANGUAGE ACQUISITION	SECOND LANGUAGE ACQUISITION[c]				
(Klima & Bellugi, 1966)	L_1 = NORWEGIAN (Ravem, 1974)	L_1 = JAPANESE (Milon, 1974; Gillis & Weber, 1976)	L_1 = SPANISH (Hernández-Chávez, 1972; Cazden et al., 1975)	L_1 = GERMAN (Wode, 1976, 1980a)	L_1 = ARABIC (Hanania & Gradman, 1977)
TAGE 1[a] $S \rightarrow \left(\begin{Bmatrix}\text{no}\\ \text{not}\end{Bmatrix}\right) - \text{Nucleus} - \left(\begin{Bmatrix}\text{no}\\ \text{not}\end{Bmatrix}\right)$	STEP* 1	STEP 1	STEP 1	STEP 1	STEP 1
amples: No wipe finger. Not a teddy bear. Wear mitten no.	Not like it now. Not ready. No, no like it.	Not me. Not dog. Not cold.	No milk. No sleeping	No, you. No play baseball No catch it.	No, English. Not raining. Not here.
TAGE 2[b] $S \rightarrow \text{Nom} - \text{Aux}^{\text{neg}} - \begin{Bmatrix}\text{Predicate}\\ \text{Main Verb}\end{Bmatrix}$ $\text{x}^{\text{neg}} \rightarrow \begin{Bmatrix}\text{No}\\ \text{Not}\\ \text{Don't}\end{Bmatrix}$	STEP 2	STEP 2	STEP 2	STEP 2	STEP 2
amples: I don't sit on Cromer coffee. He not little, he big. He no bite you.	I not this way. I not like that. Dolly "er" not here.	I no queen. I not give you candy. I no more five. Don't tell teacher,ok?	I no like this one. I no know it. I not dumb. I don't can explain.	Me no close the window. You not shut up. You no swim.	---
TAGE 3 $S \rightarrow \text{Nom} - \text{Aux} - \begin{Bmatrix}\text{Predicate}\\ \text{Main Verb}\end{Bmatrix}$ $\text{ux} \rightarrow T - V^{\text{Aux}} - (\text{Neg})$	STEP 3	STEP 3	STEP 3	STEP 3	STEP 3
amples: No it isn't. That was not me.	No, I didn't. I haven't seen this afore. You can't have this back.	You're not playing it. No, they're not white.	I'm not scare ghost. They didn't have time.	Lunch is no ready. I didn't can close it. I cannot hit the ball.	---

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* While Klima & Bellugi's "Stages" for L_1 learners are defined by Mean Length of Utterance (MLU), L_2 researchers have not usually done so. Instead they report the steps observed as learners acquire the second language, regardless of MLU. Therefore, we have used the term "Step" rather than "Stage".

[a] For further commentary on Stage I in first language acquisition, see Bloom (1970).

[b] In Stage 2, aux^{neg} includes words like don't as negative markers. There is good evidence that both first and second language learners consider don't to be a single morpheme, a single unit, and not a combination of do and not at this stage.

[c] See Schumann (1978) for a comprehensive review of current research in second language negation.

children, collected longitudinally over a period of time. All reported striking similarities between the developing structures of L_2 learners and those of L_1 learners.

Table 2-2 represents the major steps that have been observed during the acquisition of basic English negation: First attempts (Step 1) generally place the negator (e.g. no, not) outside the rest of the utterance--either before or after it. In Step 2, the negator is placed inside the utterance between the subject and verb, although the auxiliary (e.g. is, are, do) is still absent. In Step 3, the early auxiliaries are used, and the negator is correctly placed to the right of the auxiliary.

2. **Wh-questions.** Wh-questions require, first of all, that the speaker place a wh-word (what, why, who, how, etc.) before the rest of the question. At the same time, if there is an auxiliary in the statement form of the sentence, it must exchange places with the subject noun. The following illustrates these requirements:

Statement:	Those are mangos.
Wh-word placed at the beginning:	What those are?
Auxiliary inversion:	What are those?

If no auxiliary is present, as in They cook rice every day, then do must be inserted in the spot where an auxiliary would have gone.

Statement:	They cook rice every day.
Wh-word placed at the beginning:	What they cook every day?
Do insertion:	What do they cook every day?

Given that wh-constructions require the coordination of several kinds of knowledge, various things may be overlooked by beginning learners.

(1) Learners may not have learned to exchange the places of the auxiliary (e.g. are) and the subject (e.g. those).

(2) Learners may not have acquired some or any of the auxiliaries yet. For example, in What he done? the learner does not use the auxiliary has.

(3) Learners may not insert do as the tense-carrying element which is required in cases where no auxiliary is available. For example, in How they get it all the time?, do should have been inserted before the statement.

All of these errors occur in the developing speech of both first and second language learners acquiring English. The transitional constructions observed seem to fall into four major ordered steps:

STEP 1: *Wh*-words appear before the rest of the statement form of the utterances, which is otherwise left unchanged. Utterances have virtually none of the little grammatical words and endings required, in particular auxiliaries such as *is* and *do*. A typical Step I question is:

What you study?

STEP 2: Some early auxiliaries (e.g., *is*, *are*, *was*) appear, along with some modals (*can* and *will*). The auxiliaries are not yet systematically inverted with the subject. A typical Step 2 question is:

What she is doing?

STEP 3: The early auxiliaries, which are acquired in Step 2, are regularly inverted. On the other hand, in the *wh*-questions that require late auxiliaries such as *do* and *am*, the auxiliaries are still omitted. In this stage, therefore, the learner produces *wh*-questions in which the auxiliary is inverted resulting in a correct sentence, along with those in which the auxiliary is omitted resulting in an incorrect sentence.[6] Typical Step 3 questions are:

What are they?
Where I put the man?
What he did?

STEP 4: The late auxiliaries (e.g. *has*, *been*, *am*) are acquired and are inverted with subjects. *Do* is inserted between the *wh*-word and the subject, although it may still be misformed, as in

Do he make that?

As with the development of negation, researchers compared *wh*-question development for L2 learners to that reported by Klima and Bellugi (1966) for first language acquisition.

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[6] The *do*-insertion rule does not operate regularly yet, although *don't* appears in non-question utterances and is inverted in *yes-no* questions.

TABLE 2-3. SOME INTERMEDIATE STEPS IN THE ACQUISITION OF WH-QUESTIONS BY CHILDREN AND ONE ADULT: L_1 AND L_2

	L_1 = ENGLISH (Klima & Bellugi, 1966)	L_1 = NORWEGIAN (Ravem, 1974)	L_1 = JAPANESE (Gillis & Weber, 1976)	L_1 = SPANISH (Cazden et al, 1975)
STEP 1 Virtually no auxiliaries.	Who that? Where milk go?	Where find it? Where er hers Mommy?	---	What you study?
STEP 2 Some auxiliaries; plus Modals (can, will). No inversion rule.	What he can ride in? Where the other Joe will drive?	What she is doing? Whosis that is?	...What's that is?	---
STEP 3 Inversion (or acquired auxiliaries); Do-insertion for Wh-questions not in control yet.	---	What are they? What are he doing now? Why can't you touch with your--with your hand?	Where's the start? What you did? Where I put the man?	How can you say it? Where you get that?
STEP 4 Inversion of all acquired auxiliaries; Do-insertion for Wh-questions under control.	---	What did you talk to them?	How can I get this in? How do you do it?	Where do you live?

Table 2-3 summarizes these comparisons in terms of the developmental steps observed.[7]

3. Yes/No Questions. The acquisition of English yes/no questions (questions that can be answered with a yes or no, e.g. Is she very fat? Do you want some?) has also been investigated, though much less systematically.

Some studies (Klima & Bellugi, 1966 for L_1 acquisition; Ravem, 1968; Gillis & Weber, 1976 for second language acquisition) show clearly that yes/no questions first appear uninverted (This is a face?), and without do (Daddy go yesterday?).

Then the auxiliaries that have been acquired are inverted and do is used.[8] From the available data, scanty though they are, it appears that for some subjects at least, the auxiliary inversion rule is applied to *yes*/*no* questions somewhat before it is applied to *wh*-questions. Likewise, the *do*-insertion rule seems to begin operating on *yes*/*no* questions before it operates regularly in the *wh*-questions.

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[7] As we noted about negation, not all of the researchers' data we reviewed contained examples of all four steps. In most instances, this was simply because the writers presented few actual examples (only three or four in some cases), focusing instead on discussion of the characteristics of the examples. Further, as Table 2-3 indicates, Step 3 is characterized by the occasions for late auxiliaries. Learners typically omit these, consequently they cannot demonstrate subject-auxiliary inversion in these utterances. In producing utterances that contain occasions for early auxiliaries, however, learners produce the auxiliaries and invert them with the subject. Schumann (1976) has suggested that such data indicate that the inversion rule is applied arbitrarily, and therefore that there is not a systematic development in the L2 acquisition of wh-questions. Such an inference seems premature, however, since the operation of an inversion rule can be demonstrated only with items that have been acquired. One can invert if the pieces to invert are both present; however, if the piece to be inverted is omitted, inversion is impossible. Similarly, the failure to insert some form of do between the wh-word and the subject, (e.g. where you get that?), cannot speak to the presence, absence, or arbitrary application of an inversion rule in a learner's syntactic repertoire.

[8] We do not include don't, didn't or doesn't in our wh-question do-insertion rule, as do+negative may already be present before inversion takes place (e.g. He doesn't like it. What doesn't he like?) We refer only to the do-insertion which is required when there is no auxiliary in the original utterance to invert (e.g. He goes. Does he go?)

4. Embedded *Wh*-Questions. Embedded *wh*-questions are of special interest because they require that learners **not** apply rules they have already learned. When questions are embedded in phrases such as *We don't know*... the auxiliary remains in the same place as it is in a statement, e.g. *we don't know why she is sad*. It is ungrammatical to follow the simple question rule and say *we don't know why is she sad*. Likewise, *do* is not inserted, as in *I wonder if she likes him*. We don't say *I wonder does she like him*. Before learners discover this kink, we regularly see errors due to the overapplication of rules otherwise well learned.

The converse also happens. Some learners attempt embedded question constructions early--even before they have mastered the auxiliary inversion or *do*-insertion rules. The resulting embedded constructions then look right--for example, *I don't know what he is doing*. We know, though, that they are not holding back on the inversion rule because we also hear *what he is doing*?, making it clear they don't control the inversion rule at all.

The transitional embedded *wh*-constructions that learners use (starting at the point when they have acquired the auxiliary inversion and *do*-insertion rules) are particularly revealing of how the learner's reliance on previously acquired rules results in predictable transitional constructions when new related second language structure are being tried. Table 2-4 illustrates the transitional constructions observed in the acquisition of these structures by Spanish-, Keres- and Japanese-speaking children, and by one Spanish-speaking adult.

As Table 2-4 illustrates, learners begin by using the inversion rule from the simple *wh*-questions. Next, we see examples demonstrating that sometimes the learners try it both ways at once--inverted and uninverted. Finally, learners withhold the auxiliary inversion and *do*-insertion rules when the questions are placed into embedded contexts.

5. Reflexive Pronouns. The development of the reflexive pronouns *herself*, *himself*, and *themselves* was investigated in a study of 175 Spanish speaking students in the United States (grades 3-8) by Dulay and Burt (1977). The transitional constructions observed were compared with observations made of the acquisition of some of these complex pronouns by first language learners (Brown, 1973), as well as with observation of their development for a second language learner (Hakuta, 1976).

TABLE 2-4. SOME INTERMEDIATE STEPS IN THE SECOND LANGUAGE ACQUISITION OF EMBEDDED WH-QUESTIONS

INTERMEDIATE STEPS	L_1 = SPANISH (Dulay & Burt, 1977; Cazden et al., 1975)	L_1 = KERES (Dulay & Burt, 1977)	L_1 = JAPANESE (Hakuta, 1975)
STEP 1			
[S] + [WH-word - Aux - NP]	I don't know where's the food. I don't know what are those. I know where are you going.	I don't know what's that.	I don't know where is it.
STEP 2			
[S] + [WH-word - Aux - NP - Aux]	I don't know where's the food is. *	I know what's that is.	I don't know where is the woods is.
STEP 3			
[S] + [WH-word - NP - Aux]	I don't know where the food is. I don't know what those are. I don't know what he had.	I know what that is.	I know where it is.

*No example for Step 2 involving the plural copula was found in the children's speech protocols.

Although data on the acquisition of the whole set of reflexive pronouns is not yet available, what has been observed presents an orderly picture of the development of these pronouns for both first and second language learners. Table 2-5 summarizes the transitional constructions observed so far.

The developmental steps observed provide an interesting example of how learners try to fit new data into their existing (but not yet mature) language system. Once they begin to systematically combine a pronoun form with self, we see that they use the possessive pronoun forms -- my, your, her, to do so. All of these lead to correctly formed reflexive pronouns: myself, yourself, and herself. His and their, however, are exceptions; their possessive forms are not combined to form reflexives, and this is the source of the erroneous forms hisself and theirself(ves.) The preferred forms are the exceptional himself and themselves.

"Children [and older second language learners], by inventing hisself (and theirself), and often insisting on it for quite a period, iron out or correct the irregularity of language. And, incidentally, they reveal to us the fact that what they are learning are general rules of construction--not just the words and phrases they hear" (Brown 1973:98). The general rule of construction learned is that "possessive pronoun form + self = reflexive pronoun". Overapplying this rule to exceptions produces the transitional constructions observed in Steps 2 and 3.

Blending of transitional steps. The beginning and end of developmental steps in the acquisition of a structure are not as abrupt as the tables above suggest. Language development is not a series of plateaus, but a continuum. Learners typically use transitional constructions representative of one step while they try out forms representing the next step.

Skipping a step. All three steps are not always apparent in the speech of the L_2 learners studied. In the negation research for example, some data showed utterances characteristic of just Steps 1 and 3; others just Steps 2 and 3, and others showed all three. It is difficult to ascertain whether the step was actually skipped by the learner. As Cazden (1972) points out in her discussion of research methods, learners may very well produce structures when researchers aren't there to collect them. We can conclude, however, that whether or not steps were skipped, the types of transitional constructions observed appeared in the same order for all subjects, indicating that the structure develops systematically.

Variability of forms. Learners may differ in the number and type of forms they produce during a given stage of language development. Second language learners, who are mentally more mature than first language learners, exhibit quite a variety of

TABLE 2-5. SOME INTERMEDIATE STEPS IN THE ACQUISITION OF REFLEXIVE PRONOUNS FOR FIRST LANGUAGE AND SECOND LANGUAGE

INTERMEDIATE STEPS	L_1 = ENGLISH (Brown, 1973)	L_1 = SPANISH (Dulay & Burt, 1977)	L_1 = JAPANESE (Hakuta, 1975)
STEP 1 Refl. Pron -- $\left\{\begin{array}{l}\underline{\text{self}}\\ \text{pronoun}\end{array}\right.$	---	(She see(s)) her (He see(s)) him (They see) them	You have to make it self.
STEP 2 Refl. Pron -- $\underset{[+\text{poss}]}{\text{Pron}}$ + $\underline{\text{self}}$	hisself	... herself ... hisself ... theirself	You can write it with yourself. They have to do it with theirself.
STEP 3 Refl. Pron -- $\underset{[+\text{accusative}]}{\text{Pron}}$ + $\underline{\text{self}}$	---	... herself ... himself ... themself(s)/ves or ... theirself(s)/ves*	---

*Theirselves is a mature form in some varieties of English.

forms in their speech. In the acquisition of negation, both the negator and the auxiliary are expressed in various ways by different learners. For the negator in Step 2, for example, some used just no or not; others used one of these (or both) as well as don't; while others used can't in addition to no, not and don't.

All these variations are consistent with the general characteristic of Step 2, namely, that the negator was usually placed after the subject, and the auxiliary and the negator were treated as a single unit regardless of which auxiliary the learner apparently mistook as part of the negator (can't, don't or both).[9] Similarly for steps in negation, Felix (1977, 1980c), found that German high school students who were exposed to English only during their formal ESL classes placed don't/doesn't rather than the negative morphemes no/not in sentence-initial position. After detailed explanations of the do-insertion rule the students obviously knew that they were supposed to use don't/doesn't for sentence negation; however, as they were unable to apply the rule correctly, they did exactly what language learners in a natural language environment do as a first approximation, namely place the negator outside of the remaining sentence.

This type of variability within learning steps appears to characterize the acquisition of other structures as well. Madden, Bailey, Eisenstein & Anderson (1978), for example, in a study of 46 adults learning English as an L_2, found that in the acquisition of auxiliaries (is, are, do and does), learners alternated different auxiliaries for each other. They also noted that some students tried to use all the auxiliaries while others attempted only one or two. The use of more than one form within a step, then, appears to characterize the acquisition of structures, with some learners alternating more forms for a structure than others. This variation does not, however, alter the place of the step in the total sequence.

ACQUISITION ORDER

Language acquisition is a gradual process that can take anywhere from some months to several years. During this time, the learner acquires the different structures that make up a language: tense endings, plural markers, negative sentences, complements, and so forth. Learners acquire some of these structures almost immediately. The ordering of the subject, verb, and object in a simple sentence, for example, is learned very early, as is the *-ing* ending on English verbs (*She's working*). Other structures, such as simple verb tenses, are acquired later and still others only after much natural exposure to the language. Studies of acquisition order seek to determine the order in which learners acquire language structure.

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[9] One may conclude that can and do are acquired as auxiliaries when they are produced without the contracted negative morpheme. In the available data Step 2 is characterized by the appearance of can't and don't as unanalyzed rather than as segmented elements, suggesting that these forms are used as negators rather than as auxiliaries.

For a long time people believed that students learned structures in the order in which they were taught. Teachers have noticed, however, that no matter how much they drill or correct certain errors, students keep making them. Many teachers have told us, for example, that getting students to add the third person *-s* to a verb (as in *She likes papayas*), or to use *has* instead of *have* (as in *Mary has a cold*) is a losing battle when teachers attempt it early in an English as a second language course. Students may use these items correctly in a drill or a memorized dialogue, but they invariably fail to do so in spontaneous conversation.

Researchers have finally discovered the major reason behind such apparently intractable errors: the third person *-s* and *has* appear relatively late in the order in which learners naturally acquire English structures. If such structures are presented early in a course, students will have an inordinately difficult time learning them. They do not learn to use them spontaneously until they have acquired enough of the English rule system. Students may be able to learn some structures **consciously**, but true subconscious acquisition will come only when the students are ready.

In current practice, major aspects of language teaching often involve the ordering of structures: sequencing lessons, organizing language textbooks, developing reading material, and selecting items for language tests. Even teachers' reactions to students' errors are influenced by what they think a student should know at a certain point in the learning process. If teachers knew the order in which students naturally tend to learn language structures, they could work with the process rather than against it.

L_2 researchers have been particularly inspired by Roger Brown's now classic longitudinal study of the acquisition of English as a first language. Brown studied three unacquainted children to whom he gave the research aliases of Adam, Eve and Sarah. Analyses of their speech collected at weekly intervals over a four-year period revealed that these three now famous children learned 14 English grammatical morphemes in a similar order. Brown's finding was subsequently corroborated in a cross-sectional study of 24 children (de Villiers & de Villiers, 1973).

The absence of direct correspondence between the order found and certain environmental characteristics added particular strength to Brown's findings. Brown found that the structures that were most frequently produced in the children's linguistic environment were not necessarily learned earlier; nor were the structures that received positive reinforcement (in the Skinnerian sense) learned earlier than nonreinforced structures.

These results led Brown to suggest that "we presently do not have evidence that there are selective social [environmental] pressures of any kind operating on children to impel them to bring their speech into line with adult models"(1973:105). Indeed, Brown suggested that "...children work out rules for the speech they hear, passing from levels of lesser to greater complexity, simply because the human species is programmed at a certain period in its life to operate in this fashion on linguistic input"(1973:105-106).

This intriguing picture of the language learning process, together with its far reaching implications for second language teaching, led to the initial studies of L_2 learning sequences. Might there also be a common order of acquisition for certain L_2 structures? Would it be the same or different from the sequence found for first language learners? All the studies performed to date revolve around one major question in one way or another: Is there an acquisition order for certain English structures which is characteristic of L_2 learners?

Nearly every well designed study has answered this question in the affirmative. Researchers have discovered an L_2 acquisition order which is characteristic of both children and adults. The order, for as yet unknown reasons, is similar for both speaking and writing, provided that the data studied are natural conversations or compositions. This general conclusion is one of the most exciting and significant outcomes of the last decade of second language acquisition research.

The L_2 order is somewhat different from the L_1 order (Dulay & Burt, 1974 and 1977), although not enough work has been done yet to determine the specific reasons underlying the differences. Such a determination would comprise a major contribution to cognitive developmental psychology. In general, as we have said before, the mental age differences between first and second language learners probably play a major role.

The existence of an ordered set of L_2 structures does not mean that there is no variation at all in the acquisition orders that have been observed. Naturally, individual learners show idiosyncratic behavior in certain aspects of language acquisition, as they do in all other behavior. Certain structures in English such as articles, are particularly susceptible to variation across subjects.

Differences in observed L_2 acquisition orders are more commonly brought on, however, by shortcomings in researchers' methods or designs than by real ordering differences among learners. The use of inappropriate or insufficient data, or treating close but unordered relationships as ordered have served to cause unnecessary confusion. (See Krashen, 1977a; Dulay, Burt & Krashen, in press for detailed discussion). Perhaps such confusion is inevitable in a new field such as this, but the importance of the development of a body of data that can be compared across different studies cannot be overstressed.

Acquisition Order of Grammatical Morphemes

Most of the L_2 sequence studies have investigated grammatical morphemes: noun and verb inflections, articles, auxiliaries, copulas, and prepositions. These almost trivial items of language have been a popular subject of study because grammatical morphemes are easily elicited--almost any verbal utterance contains several--and it is fairly easy to determine whether they are used correctly. Moreover, Brown's methodological insights into grammatical morpheme analysis facilitated the development of analytical methods for L_2 research. More recent acquisition order studies have, however, also included structures such as word order in various constructions.

The first study on L_2 acquisition order included three groups of Spanish-speaking children in different instructional programs: Puerto Rican children in New York City; Chicano children in Sacramento, California; and Mexican children who lived in Tijuana, Mexico and attended school across the border in San Ysidro, California (Dulay and Burt, 1973). The second study included two groups of children, one Spanish-speaking and one Chinese-speaking, both from New York (Dulay & Burt, 1974b). Finally, a national study including over 400 children in 10 states throughout the country was undertaken (Dulay & Burt, 1975b; Burt, Dulay, & Hernandez-Chavez, 1976).

All the data were collected using a "structured conversation technique": cartoon-type pictures and questions were used to elicit natural utterances containing a range of syntactic and morhological structures. Anything the child offered in response to the eliciting questions was accepted. No attempts were made to encourage or prod the child to use certain structures, nor were children corrected or otherwise discouraged. The acquisition orders discovered for certain structures are illustrated in Figure 2-B.

The labels for the grammatical items in Figure 2-B are precisely defined grammatical structures. For example, "case" here includes only nominative and accusative pronoun forms in simple sentences and within simple subjects. Sentences like *She and I are leaving* were not elicited. The possessive is almost always the elliptical, such as *the dog's*, rather than *the dog's food*. (See Table 2-6 for the definitions of the structures that appear in Figure 2-B)

The figure shows that the items in Group I are acquired before all the items in the groups below. Items in Group II are acquired after those in Group I, but before those in Group III

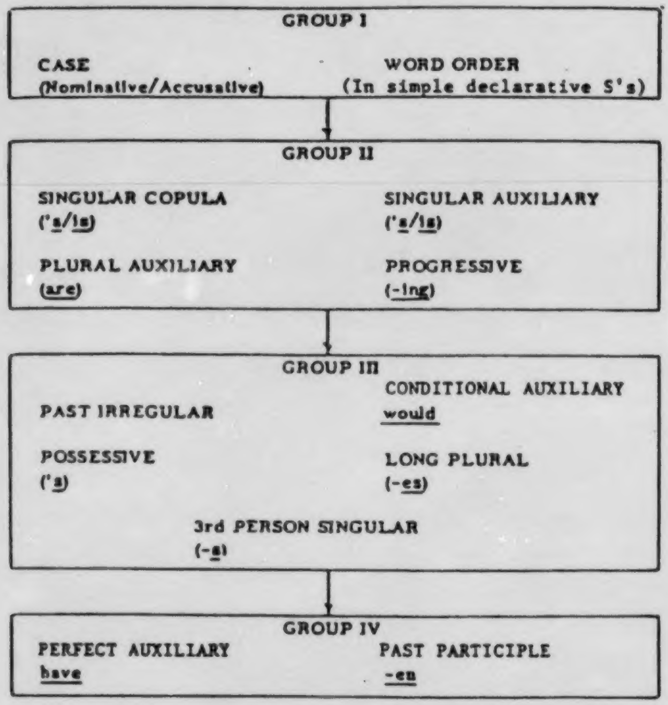
FIGURE 2-B. ACQUISITION HIERARCHY FOR 13 ENGLISH GRAMMATICAL MORPHEMES FOR SPANISH SPEAKING AND CANTONESE SPEAKING CHILDREN

SAMPLE:

N: *536*
AGE: *5-9 years old*
L1: *461 Spanish*
55 Chinese
L2: *English*

RESEARCH DESIGN: *Cross-sectional*
ELICITATION TECHNIQUE: *Structured conversation*
L2 ENVIRONMENT: *Host*

ACQUISITION HIERARCHY OBSERVED



NOTE: Please see Table 2-6 for the precise definition of the structures in this hierarchy.

TABLE 2-6: DEFINITIONS OF STRUCTURES USED IN THE DULAY & BURT STUDIES (1973, 1974 b&c, 1975)

STRUCTURES	DEFINITION
WORD ORDER	The order of constituents in simple and compound declarative sentences. (Interrogatives and complex sentences are not included nor are temporal adverbs.)
PRONOUN CASE	Nominative and accusative case in simple pronoun subjects or objects, *excluding* coordinate noun phrases such as *he and I*. Regularly elicited were the pairs *he-him*, *they-them*, and less frequently *she-her*.
PLURAL	Only the short plural is included in this category (both the /s/ and /z/ allomorphs), e.g. door*s* and window*s*. All cases of back to back *s's* were excluded, as one cannot normally tell where the *s* belongs, e.g. *the window seem big*, where one cannot readily tell if the plural marker is present or not.
SINGULAR COPULA	Third person singular of *be*, as in *She IS/'S a girl*. All cases of back to back *s's* were excluded, e.g. *He's so fat*.
PROGRESSIVE	*-ing* in any progressive tense, whether present, past, or future, as in *He is/was/will be feedING the birds*. (Gerunds not included.)
SINGULAR/ PLURAL AUXILIARY	The third person singular and plural of *be*, is in *She IS/'S* dancing; *They ARE/'RE sleeping*. In the case of the singular, back to back *s's* were excluded (e.g. *She's singing*).
ARTICLE	Both *a* and *the* were combined under the general category of article.
PAST REGULAR	The /t/ and /d/ allomorphs of the past regular were scored. The / d/allomorph was not elicited. Cases of back-to-back stops were omitted (e.g. *He walked today*), as one cannot tell if the past marker was supplied.

(continued)

TABLE 2-6: Continued

STRUCTURES	DEFINITION
PAST IRREGULAR	The irregular past form of main verbs, such as ate, stole, and fell. Auxiliaries (was, were, etc.) are not included here nor are past participles such as gone. When a child offered a verb such as eated, past irregular was scored as a misformation.
CONDITIONAL AUXILIARY	The auxiliary would in simple conditional and perfect conditional constructions, e.g. If she turned around she WOULD/'D see them; He WOULD/'D have stolen it.
POSSESSIVE	The possessive marker 's on nouns, e.g. the girl's flower. This was scored separately from the possessive pronouns. Examples with back to back s's were omitted.
PRESENT INDICATIVE	This was scored whenever a third person singular noun or pronoun appeared in subject position immediately followed by a main verb. (Does and has used as main verbs were not included in this category.) Cases of back-to-back s's were omitted, e.g. She eats so much.
LONG PLURAL	All cases where the /z/ allomorph is required for plural formation, as in housES and nosES.
PERFECT AUXILIARY	The auxiliary have in perfect conditional constructions, e.g. She would HAVE/'VE eaten it; They should HAVE/'VE taken it with them.
PAST PARTICIPLE	The marker -en on the main verb in a perfect construction, e.g. They have takEN the basket; She would have fallEN down too.

and IV, etc. The reverse is also true. Namely, the acquisition of items in Group IV implies the acquisition of the items in Groups I-III.

These ordering relationships obtained for all three of our samples, including Chinese- and Spanish-speaking children, for a total of 536 children across the United States who were in the process of learning English as a second language. (See Figure 2-C and Table 2-6.)

Many studies have been published in recent years that confirm the presence of a predictable order of acquisition for grammatical morphemes in child second language acquisition of English as a second language (Kessler & Idar, 1977; Fathman, 1975; Makino, 1979) as well as for adult second language acquisition (Krashen, Madden, & Bailey, 1975; Fuller, 1978; Krashen, Houck, Giunchi, Bode, Birnham, & Strei, 1977). These studies also confirm that the second language order of acquisition is, to a large extent, independent of the learner's first language.

The second language order of acquisition for morphology shows some similarity to the first language order found by Brown and de Villiers and de Villiers, but it also shows differences. It seems that there is much less difference in the order of acquisition of bound morphemes (morphemes attached to a stem, such as plural, third person singular -s, and the past tense marker). Free morphemes appear to be acquired relatively later in first language acquisition (e.g. morphemes such as is, the). Figure 2-C illustrates the differences and Table 2-7 displays the Spearman rank order correlation coefficients obtained.

Acquisition order studies have also been done for language-delayed and aphasic populations. Johnston and Schery (1976) studied 287 children aged 3 to 16 enrolled in special classes of the Los Angeles County Program for severe oral language disorders. They reported an order of acquisition quite similar to that seen in child first language acquisition. On the other hand, de Villiers (1974) examined adult agrammatics and found a difficulty order which Bailey et. al., judged to be similar to the second language acquisition order for grammatical morphemes. One might speculate, therefore, that children with language delay show the first language order, differing from normals only in that acquisition is slower, while adult aphasics (agrammatics) show the second language order of acquisiton.

Not enough research has been done to explain the similarities or differences between L_2 and L_1 acquisition orders. In fact, we still have not discovered the principles

FIGURE 2-C. COMPARISON OF L_1 AND L_2 ACQUISITION SEQUENCES

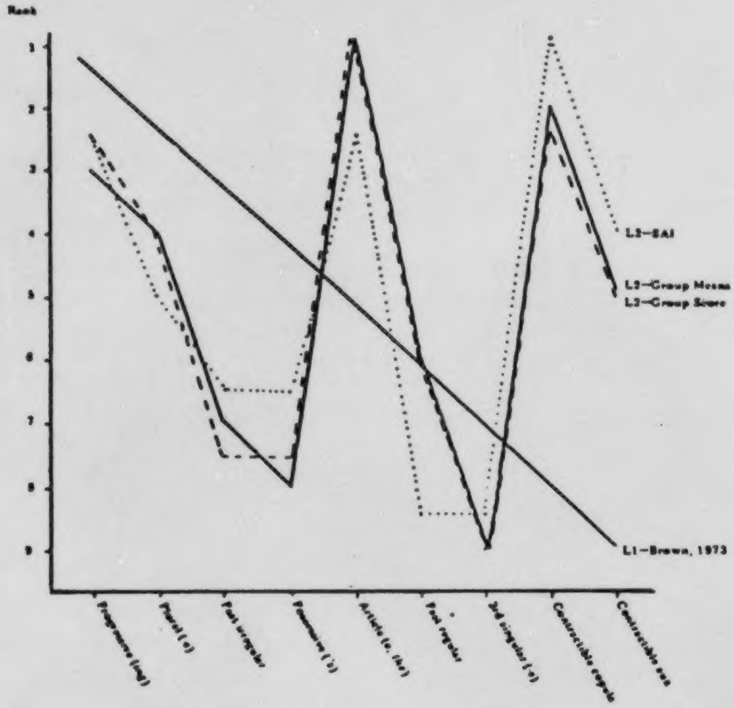


TABLE 2-7. SPEARMAN RANK ORDER CORRELATION COEFFICIENTS

	L1			L2		
	Brown	de Villiers Method I	de Villiers Method II	Group score	Group means	SAI
Brown		.84	.78	.43	.42	.39
de Villiers Method I			.87			
Group score					.98	.89
Group means						.91

underlying the L_2 order by itself nor the L_1 order by itself.[10]

Acquisition Order of Simple and Embedded Wh-Questions

The findings described thus far focus primarily on the acquisition order for grammatical morphemes. Although sparse, there is some data on higher level structures. Using both structured and unstructured conversation techniques, Dulay and Burt (1977) studied the order in which Spanish- and Keres-speaking children acquired wh-questions. The hierarchical method of analysis revealed the following order of acquisition for the two language groups:

What's that/this
↓
What are those/these
↓
I don't know what those/these are
↓
I don't know what that/this is

The arrows indicate that the acquisition of the structure at the top of the arrow precedes the acquisition of the one at the bottom.

As the acquisition order illustrates, the correct form of simple questions precedes their correct form in embedded contexts, in which the simple questions must take on an uninverted form. It is interesting that although What's that is the first learned of this group of related structures, its correct form in the embedded context is also last to be learned. It is likely that what's that? is learned as one vocabulary word at first (as opposed to what are those?), making it difficult for the learner to segment it appropriately when required to do so.

Acquisition Order of Reflexive Pronouns

In the same study, Dulay and Burt (1977) investigated the acquisition of a subset of reflexive pronouns for the Spanish speaking group. Since all the children were learning standard English, it was possible to include forms such as himself and

---

[10] As mentioned earlier Brown (1973) explored grammatical and semantic complexity to find the principles underlying the L_1 order he discovered. He found that neither by itself could completely explain the order. He concluded that a combination of linguistic and semantic complexity must underlie the L_1 order.

themselves in the study. The order observed for the reflexive pronouns studied is as follows:

he, self[11]
↓
him, her, them
↓
herself
↓
himself
↓
themselves

This acquisition order demonstrates the learner's creative learning of reflexive structures. Children learn *himself* later than *herself* because they treat the reflexives as possessive constructions, i.e. as *his-self* at first, since they are already using basic possessive structures such as *his booklet* at first. *Her* happens to be the possessive form but *him* and *them* are not. So we get *herself*, *hisself*, and *theirself* at the same point in development, together with basic possessive constructions such as *his basket* and *their food*. Because the feminine form of the reflexive pronoun uses the possessive pronoun form, the feminine reflexive form is acquired early, obscuring its temporary misclassification into the possessive structure. The late acquisition of *themselves* results from failure to pluralize the *-self*, rather than from any characteristic of the formation of reflexives.

Other Findings in L_2 Grammatical Acquisition

1. **Routines and Patterns.** Certain kinds of utterances produced by language learners have unique characteristics that require special consideration. These include what have been called *routines* and *patterns*. Routines and patterns are especially interesting and important in that they allow learners to use language that appears to be well beyond their current level of grammatical competence.

Routines are memorized whole utterances, phrases or sentences learned much like a single word. They are produced on certain occasions such as *How are you?* as a greeting or *It's my turn* in a game. Routines are usually needed to participate in games or social events. Patterns are similar to routines but are partially analyzed, including an open slot for a word or phrase. Examples include expressions like That's ________. or Do you want ______?

---

[11] Although there were not enough occasions for these forms to be included in the analysis, both were observed being used by beginning speakers. Had the sample included more beginning speakers, more of these forms might have been observed. It is possible that forms such as these, if they appear in a learner's speech, precede the others presented in the above.

Routines and patterns are distinguishable from "ordinary" language in that they show no transitional stage of development or systematic order of acquisition, and are unusually error-free. Here is a good example of the early use of routines and patterns from Hatch, 1972).

Paul, a four year old Chinese-speaking ESL learner, used English only in school and on the playground. During Paul's first month in the United States, he seemed to be learning by imitation, picking up useful phrases and sentences (routines). In the second month, more "propositional speech" began to develop, speech similar to what one sees in descriptions of child first and second language acquisition. Thus, routines such as

Get our of here.

and

It's time to eat and drink.

were used at about the same time that Paul was also producing utterances such as

This kite.
Ball no.
Paper this.
Wash hand?

It has been suggested that children acquire routines and patterns because of their unusually high frequency in input, coupled with the learner's need for a minimal language repertoire to interact socially.

It has also been suggested that second language learners tend to use routines more than first language learners, due to the older learners' greater memory and/or to their greater need to "get by" in real life situations that demand early use of the second language.

2. **Intelligence and Motivation.** Current research in child second language acquisition indicates that children vary somewhat with respect to rate of acquisition, even when they are in the same linguistic environment. It seems to be the case that this variation is due to motivational and affective factors, rather than to differences in intelligence.

More outgoing children--children more interested in social interaction with second language speaking peers--learn to communicate more rapidly. Fillmore (1976), in her case study of five children acquiring ESL in an American kindergarten, provides clear evidence for this. Nora, Fillmore's most successful learner, "was strongly motivated to be associated with English speaking children... she sought them out to play with to an extent that none of the other children in the study did" (p. 706). Also, "in contrast (to some of the other children) Nora was quite uninhibited in her attempts at speaking the new language ... from the first she was more concerned with communication than form" (p. 710). Hatch (1978) has also documented cases from diary studies where affective and attitudinal factors played a role in successful child second language acquisition.

On the other hand, Genessee (1967) found that intelligence level, as determined by IQ testing, does not predict success in child second language acquisition.

Children with certain motivations and attitudes may do better in language acquisition for two reasons. First, they may simply interact more with speakers of the second language and thus obtain more input. Second, they may have lower socio-affective filters and thus allow in more of the input.

L_2 PHONOLOGY[12]

In comparison to the research that has been done in the acquisition of L_2 syntax, our knowledge of the development of L_2 phonology is still in its infancy. In this section we will discuss the available empirical studies, as well as some of their implications for our understanding of the process in L_2 phonological acquisition.

Second language learners will often use pronunications that, from the point of view of monolingual learning, would be considered deviant and would require some sort of corrective intervention. Yet, as has been demonstrated also for syntax and morphology, given particular conditions and stages of learning, such pronunciations, rather than being abnormal, are expected.

Simultaneous Acquisition of Two Phonologies

Most of the research to date on the acquisition of L_2 phonology describes the simultaneous acquisition of two languages. One important finding of these studies has been that in all essential respects early simultaneous bilingualism does not differ from the acquisition of a single language. In the earlier stages of development, phonological acquisition consists of learning to make the fundamental vowel and consonant distinctions that are common to both of the languages in the child's environment. The processes involved are indistinguishable from those of L_1 phonological development.

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[12] This section was reprinted from Dulay, Hernandez-Chavez, & Burt, 1978.

For example, earlier reduplicated syllables like [kiki] "kitty" become differentiated as [kiti] (Burling, 1959). Phone substitutions similar to those that occur in learning a single language are made, as for example, [t] for [s] or [d] for [i] in the Spanish forms [but] /bus/ or [dus] /lus/, respectively (Contreras and Saporta, 1971). Consonant clusters are simplified, e.g., [piˈs] for please or [ˈsi] for horsie (Vogel, 1975); etc. These processes apply equally to words from each of the two languages of the learner.

Differentiation of the phonologies in simultaneous acquisition begins to take place somewhere around the 24th month. Major (1976) proposes that this differentiation begins with different phonetic realizations for "identical" segments at about 21 months. Thus, Portuguese /i/ is pronounced [iə] in aqui, while English /i/ in me has the form [ei̯]. However, he also notes that as late as age 31 months, comparable segments in both languages have the same substitutions. For example, English fly is [fu̯ail] and the Portuguese flor is [fuθh]. Vogel (1975) also notes that at 24 months the Romanian- English-speaking child she studied still had a single, undifferentiated system. Burling (1959) places the differentiation between Garo and English in his son, Stephen, as late as 31 months when previously identical vowels begin to show distinct phonetic realizations in the two languages.

Besides this variation in the timing of the divergence of the two languages, there are other differences as well. It seems very clear that the earliest phonologies in all cases combine the two input systems into a single output. It is as though the child does not yet realize (on some level below consciousness, of course) that it must learn two phonologies. Later, at about the end of the 2nd year, some children will split the heretofore combined system into two.

Each of the two shares a "common core" of phonological elements and processes, differing principally on the basis of new learning. Other children, such as Burling's son, will begin very distinctly to favor one or the other of the two languages rather than splitting the systems. In Stephen's case, Burling reports that the phonetics of certain segments were distinctly Garo sounding. For example, the k and g type sounds were pronounced as the postvelars [k] and [ḡ] in both Garo and English words. The distribution of certain positional variants, e.g., the vowel [ɛ], which is always short in Garo, followed the Garo rather than the English pattern.

All of the studies cited above report the bilingual development of individual children, each in a unique set of learning conditions, so it is not surprising to find important differences in the time manner of the differentiation of the two languages. For some, each of the parents spoke a different language to the child; others had, in addition, nursemaids who spoke one of the languages with the child, others did not. It is interesting to note that the Burling child, whose first development beyond the single system favored one of his languages and who did not differentiate the two until late in his 3rd year, was also a child whose principal environment language was Garo, i.e., there was an imbalance in the amount and the nature of the input he received from each of his languages.

This case is particularly instructive because in several respects the development of Stephen's English phonology is comparable to that of a child learning Enlgish as a second langauge, i.e., sequentially. Stephen's learning of Enlgish phonological structures began at a time when several structures specific to Garo phonology had already been learned. In fact, his phonology can be said to have been essentially Garo until approximately 31 months of age. After the beginning of the systematic differentation, Garo continued to be the child's principal language until he was taken away from the Garo-speaking environment.

Sequential acquisition of a second phonology In sequential second language learning, children approach the task of acquiring a new language under a very different set of conditions from those that hold for L_1 and for the earlier stages of simultaneous learning. Besides being older, more cognitively advanced, and with a relatively developed motor coordination, sequential L_2 learners already know a substantial amount of their first language. For the vast majority of child L_2 learners in the United States, L_2 acquisition proceeds concomitantly with the continued development and use of L_1, at least for a period of several months or even years.

Under such circumstances, we can expect that in the beginning stages, the L_2 phonology will follow closely the pattern of the first language, in a way analogous to Stephen's favoring Garo phonology rather than immediately becoming differentiated from English. The segments that have been built up in L_1, together with their characteristic phonetic make-up within each of their permitted positions, form the foundation upon which the second language phonology is constructed. As the sequential learner progresses, the two phonologies will begin to diverge, first in the phonetics of some of the corresponding segments in the two languages, and later with respect to other characteristics.

Stephen's earliest distinctions were in the qualities of the vowels. Thus, the lax high front vowel type, which previously had an identical pronunication in each of the languages, by 32 months of age began to be pronounced [I] in English and [I] (a somewhat backer variant) in Garo; the mid vowels e and o at this same time began to acquire for English their characteristic lax pronunciations [ɛ] and [ʔ]. In a similar way, we have observed that one of the first distinctions made by Spanish-speakers acquiring English involves the differentiation of the English diphthongized vowels from their Spanish undiphthongized counterparts, e.g., [o͜u], versus [o] and [e͜i] versus [e].

Thus, in order to account for the learning of phonology in sequential second language acquisition, we must be able to specify the components of at least two major factors: the child's existing L_1 phonology and the process of L_2 phonological acquisition. It seems very clear that the sequential second language learner begins the acquisition of L_2 by using the L_1 system as a starting point, gradually differentiating the two. Until the various parts of this core system are differentiated, it acts as a filter through which the production of L_2 forms must pass. In this way, forms are able to be produced without depending upon the full scale acquisition of the L_2 phonology, and at the same time without hindering its systematic development.

The Role of L_1 Phonology in the Acquisition of L_2 Phonology

Many scholars have written contrastive analyses comparing various pairs of languages. Because Spanish-English bilingualism is one of the important areas of educational concern in this country and some of the most explicit contrastive analyses that exist compare these two languages, we take our examples for this section largely from the learning of English by speakers of Spanish. One of the most thorough analyses contrasting Spanish and English is that of Stockwell and Bowen (1965). There is no need to reproduce their work here, and the interested reader is asked to refer to it directly. However, a few examples show how this kind of analysis helps us to account for certain pronunication characteristics of L_2 learners (whose L_1 in Spanish), which we might otherwise consider to be "problems."

Phonetic comparison. One set of differences between the languages pertains to the phonetic composition of sound types that the two languages have in common. Thus, both Spanish and English have in their inventory of consonants the sound types p, t, k, l, and r, among others, each of which shows systematic differences between the two languages. In English, p, t, and k are pronounced with a forceful expulsion of air in many positions within the word. This is referred to by linguistics as "aspiration." This aspiration is not a feature of Spanish p, t, and k, so one expectation with respect to the pronunciation of Spanish-speaking children who are beginning to learn English is that words like car, toy, or pin will be produced without aspiration on the first segments. To the native speaker of English, such a pronunciation can leave an impression of "confusion" between p and b or between k and g. The differences between Spanish and English r and l will not leave such an impression, but only because there are no other English sounds with which they could be said to be confused. The English l has, in certain positions, a velar or "dark" quality, whereas the Spanish l is always alveolar or "light." Spanish has two r-type sounds, one a tap and one a trill; the English r is different from both of these in that it is retroflex.

In the vowel systems, one major differences that we noted above lies in the diphthongization in English of /o/ and /e/ and to some extent /i/ and /u/. None of the Spanish vowels are diphthongized in this way, so we would expect the Spanish-speaking child who has not acquired very much English to produce words like go or say with a short and unglided vowel.

Most of these differences, while they are not the source of any perceived "confusion," contribute to what is heard as "Spanish accent." As mentioned above in the case of the diphthongization, these kinds of differences are among the first to be learned by the L_2 child. This is not to say that phonetic differences will not persist in these kinds of segments. Minute adjustments as in the amount of aspiration, (cf. Preston et al., 1967) or in place of articulation between say, alveolar and dental stops will continue to be made for some time, and certain differences from monolingual pronunciations will often become conventionalized within a bilingual community. The essential point here is that children becoming bilingual will very early learn to distinguish the salient phonetic of most of the sound types that are shared by the two languages.

Phonemic Comparison. A second kind of difference between two languages that gives rise to differences between early L_2 and native pronunciation of the target language is a phonetic difference associated with phonemically contrastive segments. Thus, English has both /ʃ/ and /tʃ/ while Spanish has only /tʃ/. A similar relation holds for the English contrasts /b/:/v/, /s/:/z/, /i/:/I/, /e/:/ae/, etc. In each of these cases, Spanish has only one of the contrasting pair: /b/, /s/, /i/, and /e/, respectively. We can expect, then, that a Spanish-speaking child learning English will pronounce [b] for /v/, [s] for /z/, [i] for /I/, etc.

The distribution of phonological segments. We not only need to concern ourselves with comparing the contrasting and noncontrasting segments of the two languages, we must also take into account the distributions of those segments in words. For example, although both English and Spanish have the sounds m and n -- and pronounce them in essentially the same way -- both of these sounds may occur at the end of a word in English, but only n may end a word in Spanish. A word like some, then, will be pronounced by the neophyte in a way that sounds like sun. Another difference in distribution concerns consonants clusters. At the ends of words, Spanish allows no cluster; English permits a great many clusters in this position, e.g., -ks(box), -ltʃ (mulch), -mp (lamp), -rst (first), ets. Contrastive analysis will predict that the Spanish speaker learning English will either omit these clusters or else will pronounce only the portion that corresponds to one of the consonants that is permitted in final position in Spanish words.

Comparison of phonological systems. Finally, in comparing the two languages of developing bilinguals, we need to take into account the productive rules that they have acquired in their first language. These operate on phonological segments in a dynamic way, adding, deleting or modifying them such that actual pronunciations may be very different from the basic, underlying form of word. All languages have rules of this sort that children must learn. For example, English /t/ in a word like *sit* is changed to a *d*-like flap [d] in the word *sitting*, or the [aɪ] of a word like *realize* becomes [I] in the form *realization*.

In sequential L_2 acquisition, children can be expected to have learned some of these rules for L_1 by the time they begin to acquire the L_2, and this learning may impinge upon the L_2 production in a way that is quite complex. The result is that an untrained observer may be led to believe that the learner is utterly confused as to what segments to pronounce. For example, we have already noted that a final *m* may be pronounced as *n* in a word like *some*. There is a rule of Spanish phonology that interacts with a final *n* that occurs immediately before the initial consonant of a following word. The effect is essentially to assimilate the *n* to the point of articulation of the following consonant. Thus, the phrase *son perros* ("they're dogs") is pronounced [somperos]. Given such a rule, an English phrase such as *one bird* might be pronounced [w mbird]. We now have some *m's* pronounced as *n's* (some), and some *ns* pronounced as *m's* (one).

Both Spanish and English have a voicing assimilation rule by which certain sequences of two or more consonants become either all voiced or all voiceless. For example, the English past tense marker is either /t/ or /d/, depending on the previous consonant: *robbed* [rabd], *rapped* [raept]; Spanish has *los carros* [loskaros] versus *los gatos* [loz gatos]. There is a crucial difference in these two cases by which, in English, it is the second consonant that changes, whereas in Spanish it is the first consonant. These facts help us to account for a pronunciation like *froks* for *frogs* reported by Williams (1972) or for the apparent confusion between *s* and *z* when the child pronounces *z's* as *s's* in phrases like *these cats* (which we expect anyway because Spanish has only *s* and English has both sounds) but pronounces *s* like *z* when saying *this dog*.

Syllabification rules in Spanish and English also differ. These differences are most apparent with respect to the semivowels [ɪ] and [ʊ] (respectively, *y* and *w*). Details aside, English will tend to syllabify *after* these segments while Spanish syllabifies *before*. Thus, a form like *fire* will be pronounced [faɪ-ər] by a native English speaker, but it will often be pronounced [fa-y r] by a Spanish speaker learning English. (We note, incidentally, that the different transcriptions [l] and [y] mainly reflect the different syllable boundaries.) Williams (1972) cites the example [ɹayəstʔri] for *write a story*, in which there is an apparent substitution of [y] for [t]. However, remembering the constraints on word-final consonants in Spanish, we see that *write a* has the basic form /raɪ #ə/ for the child (where # represents word boundary) which by the syllabification rule becomes [ra-yə].

In the same general context, it is appropriate to mention the well known, almost stereotypic, epenthesis of the vowel *e* before such words as *school*, *spill*, *street*, etc. This is generally considered to be a curious characteristic of "Spanish accent." However, if we examine the permitted sequences of consonants at the beginning of Spanish and English words, we immediately see the source of such pronunciations. Although Spanish and English initial consonant clusters are very similar, Spanish permits no cluster of *s* plus another consonant in that position. Words that would otherwise have such a cluster epenthesize an e, e.g., *escribir* "to write," *estar* "to be," *escuela* "school," etc. It is interesting to note that the pronunciation of forms like [eskul](for *school*) or [estap](for *stop*) are not reported for young children, but only for older children and adults. This may be because this rule develops relatively late in Spanish.

From what has been said in the last several paragraphs, it should be amply evident that the developing phonology of a child learning English as an L_2 is not a simple function of differences in the inventories of sounds in the two languages. Rather, the actual pronunciations are the result of a complex set of interactions among the segment inventories, the distribution of segments in words, and the phonological processes that operate in each of the learner's languages.

Acquisition order in L_2 phonology

One remaining problem has to do with the specification of the expected order in which the various English phonological structures are learned. It is important to know this in order to assess the level of development in L_2 and in order to distinguish those aspects of phonological development that form part of the normal developmental sequence from those that do not.

Contrastive analysis predictions. Contrastive analyses provide us with an inventory of the segments in conflict in two languages, their phonetic and distributional differences, and even the interaction of the two rule systems, although most analyses of this sort are based principally on an inventory of segments rather than dynamic processes. On the other hand, this kind of analysis does not tell us the order in which structures will be learned.

Stockwell and Bowen (1965), in their comparison of Spanish and English structures cited above, do provide us with a "hierarchy of difficulty." However, this is based on the assumption that the learning of phonology involves a process of habit information. According to this view, the level of difficulty of a given structure is then a function of the strength of an established habit. Presumably, the greater the difference between a habit in L_1 and a new habit to be learned in L_2, the greater the difficulty (and, presumably, the later such a form is learned).

But even a cursory examination of their hierarchy (Stockwell and Bowen, 1965, p. 16) shows virtually no relationship between the predicted difficulty and the known facts of English L_2 acquisition. For example, their most difficult type involves a sound which is a positional variant (an allophone of a phoneme) in L_2, but which is not found in L_1. For English vis-a-vis Spanish this type will include aspirated voiceless stops or retroflex [ɹ], among others.

Yet these are among the English sounds reported to be learned earliest by Spanish-speaking children (Williams, 1972). A sound type that Stockwell and Bowen consider relatively low in order of difficulty involves a phonemic distinction in L_2 for an allophonic difference in L_1. English /z/ fits this type because it contrasts with the voiceless /s/ although in Spanish it is a variant of /s/. But this is reported to be one of the most difficult distinctions for Spanish-speaking children (Sawyer, 1959; Williams, 1972). Moreover, many adults who have mastered other English contrasts continue to use [z] only as an allophone of /s/.

Many other examples can be given that show that the Stockwell and Bowen hierarchy of difficulty makes erroneous predictions for Spanish speakers who are learning English. Although their contrastive analysis does show where two systems are in conflict, thus pointing out potential areas of difficulty, it does not adequately predict relative difficulty or order of learning.

Results of empirical investigations. A much more promising direction of inquiry for an understanding of the orders of learning is the direct empirical investigation of phonological acquisition processes in second language learners. We need to know a great deal more about the interaction of the L_1 phonological system and L_2 production: what kinds of L_1 structures affect L_2 learning? What are their effects? Which L_2 structures are affected by L_1 knowledge? In addition, we need to know much more abut the various factors that are important for the orderly development of an L_2 phonology, including amount and nature of the input, opportunities for use, attitude and motivation, etc. Crucially, we need much more information about the relationships that hold between L_2 learning and the natural processes of phonological acquisition that are found in L_1.

Most of the currently available evidence, meager though it is, suggests strongly that L_2 acquisition follows a developmental course that is strikingly similar to that of L_1. Mazeika (1972), in his study of a Spanish-speaking 27-month-old child, suggests that there is no negative transfer from English to Spanish in the learning of phonology. Some of the facts that he reports support the notion of an L_2 development that parallels that of L_1, e.g., /r/ is substituted by [w] in words like cry [kwaI]. This is a commonly reported subtitution for monolingual English speakers; Spanish speakers tend to substitute an [l], e.g., [glande] for grande. [θ], [δ], [v], and [j] are very late in L_2 development, as they also are in English L_1 acquisition by monolinguals.

Williams (1972), too, reports that [θ] and [δ] are learned late. Furthermore, the Puerto Rican children he studied tended to substitute [t] and [d] for these two sounds. (In words like brother [brʌdər], this substitution is in direct contradiction to what would be predicted on the basis of a contrastive analysis). These same substitutions are noted by Moskowitz (1970) and others for monolingual English-speaking children. It is interesting in this regard that Wolfram (1972) records the substitution of [f] for /θ/ by Puerto Rican bilinguals in word-final position, which he attributes to the influence of Black English. However, Moskowitz (1970) reports this substitution for monolingual English speakers who are uninfluenced by Black English, so Wolfram's example does not necessarily relfect this influence.

Williams cites a number of other processes that are very much like those found in learning English as L_1. For example, syllabic l is "vocalized" to [v] in words like purple. Final consonants are often deleted as in [raI] write, [faI] five, or [wI] with. In the acquisition of clusters consisting of a nasal consonant plus an obstruent, he cites a number of examples that not only provide striking evidence that L_2 processes parallel those of L_1, but also give dynamic support for a universal of phonological acquisition reported recently (Hernandez-Chavez, Vogel and Clumeck, 1975). These authors found that, in the L_1 development of nasal clusters by Spanish-speaking children, clusters consisting of nasal plus voiceless obstruent (i.e., either stops, affricates, or spirants) became simplified by deleting the nasal; clusters with voiced obstruents, on the other hand, deleted the obstruent and kept the nasal. Williams' subject Cilto produced [jap] "jumped" and [sʌθi] "something," but [frɛn] "friend," directly paralleling for L_2 English the findings of Hernandez-Chavez et al. for L_2 Spanish.

A number of writers have noted that the spirants are the class of consonants that is mastered last. We have already mentioned the stop: spirant contrast with [t,d] and [θ, δ]. Related to this is control over the affricate: spirant contrast [tʃ:ʃ]. Next to [θ, δ], the [ʃ] is one of the last spirants to attain stability in monolingual English (Moskowitz, 1970). Similarly, Benitez (1970) reports that [tʃ] and [ʃ] were two of the phonemes most frequently "missed" in testing Mexican-American seventh graders in a Texas school. Moskowitz also demonstrates that the voicing contrast between [s] and [z] is one of the very last consonantal contrasts to be attained in English. Sawyer (1959) found that "not even the best bilinguals" consistently used [z] in the way that monolinguals do.

Finally, we have already seen that children acquiring two languages simultaneously simplify consonant clusters in the same way that children learning a single language do. For sequential learners, Heiler-Saavedra (1966) had similar results, as her subjects also reduced consonant clusters. In addition, she points out that this is not a necessary strategy because adult learners will often resyllabify a cluster or epenthesize a vowel rather than simplify it. Thus, the child L_2 strategy is very similar to that found in L_1.

Process in the Acquisition of L_2 Phonology

From the above discussion, a general outline begins to emerge of the processes that children employ in acquiring a second language phonology. Upon the introduction to an L_2 phonology and the necessity of decoding and encoding the sounds of the new system, the child begans to operate dynamically on the new sounds and sound sequences in the environment. This involves either the simplification of the input in some way (reduction in the number of syllables, simplification of clusters and diphthongs, etc.), the substitution of a simpler sound for one that is less simple[13] or a sound that has already been learned for one that has not, or the generalization of constraints and the creation of phonological rules. These are processes that are found also in L_1 learning. The major difference between L_1 and L_2 learning is that in L_2 learning the child uses as a base the sounds, sound sequences, and rules that have already been learned for L_1. New phonetic distinctions (e.g., [p:p^h]), phonological contrasts (e.g., /θ :t/), and sequences of sound (e.g., /-mp#/) are learned in an orderly fashion that is fully analogous to that of first language learning.

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[13] The matter of relative simplicity is a controversial and unresolved issue in phonology, as in all of linguistics. Here we do not mean simplicity in terms of the number of features involved, but rather in terms of an acquisitional hierarchy of features and feature complexes. "Simpler" sounds are, by definition, those that are acquired in similar contexts and under similar conditions. We will not attempt to specify such a hierarchy here because it continues to be a major concern of researchers in the acquisition of phonology.

Because the second language learner already has an L_1 phonology and uses it as a foundation for further learning until new contrasts, sequences, and rules are learned, the L_2 production will have a substratum of L_1 sounds. In addition, because an L_2 child is presumably older than the monolingual L_1 child at a comparable stage of development, many of the sounds and sound combinations produced by the L_2 learner will, from the point of view of a child learning the first language, seem immature or even pathological.

In this section we have attempted to demonstrate that such pronunciations are not immature or pathological. Instead, they are the result of completely normal and expected processes of phonological acquisition coupled with the interaction of the new learning that is taking place and the knowledge of a first language that the child already has. The L_2 learner, in becoming bilingual, brings to bear on the new phonology all of the same natural language learning abilities available to the L_1 child. At the same time, knowledge of a first language permits the fullest utilization of skills and abilities toward toward the intricate task of acquiring two distinct phonological systems.

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CHAPTER 3

THE ACQUISITION OF SPANISH AS A NATIVE LANGUAGE

Migdalia Romero de Ortiz

During the 1960's and at about the time of the re-emergence of bilingual education in the United States, there appeared in the research literature a few studies exploring the process by which children learned to speak Spanish as a native language. Since that time no more than twelve studies on the subject have been completed. The purpose of this paper is to review and synthesize the literature on the acquisition of Spanish as a first language. This review will highlight the normal language behavior of children at different ages of development as identified in the research. Data obtained on the acquisition of Spanish as a first language by children exposed from birth to two languages simultaneously (Brisk, 1968; Pena, 1967; Romero de Ortiz, 1978) has also been included.

Current research on the acquisition of Spanish as a first language presently provides only limited information on the normal process of language development. Knowing what constitutes normal language development for the native Spanish speaker may enable us to infer what might constitute a language handicap.

This article will acquaint readers who may be unfamiliar with Spanish and or linguistics with necessary background information in both areas.

The article is organized as follows:

- Introduction
    - Components of Language
    - Structural Overview of Spanish
    - Critique of the Literature (including complete listing and overview of sources)
- Spanish Acquisition in a Spanish Speaking Country
    - Summary of Findings
    - Discussion of Findings

- Spanish Acquisition in the United States
    - Summary of Findings
    - Discussion of Findings
    - Natural Disruptions in Language Learning
- Errors and Strategies in the Acquisition of Spanish
- Conclusion

BASIC CONCEPTS AND MAJOR FINDINGS

Components of Language

In order to appreciate the complexity of what it means to acquire a language, we must identify the components of language i.e., the systems a child must learn in order to become a fluent speaker. They include:

1. A phonological component comprising the sound system of language,

2. A morphological component comprising the structure of words, including the word stem and its affixes,

3. A lexical component comprising the words themselves,

4. A syntactical component comprising the order of words within phrases and sentences, and

5. An overriding semantic component which includes the other four components to comprise the meaning of utterances. This component is controlled by such extraneous factors as stress, selection and placement of words and juxtaposition of sentences, among others.

Of the five components identified, morphology and syntax have been investigated by most Spanish language acquisition researchers.[1] Thus, this paper will only provide developmental data on the acquisition of morphology and syntax. Table 3-1 summarizes the sources for the developmental norms to be outlined. It plots the coverage of each study by age and by author.

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[1] Gili Gaya (1972) is the only source of information on the acquisition of the semantic system and then only by children beyond age four. Both Rodriguez Bou (1969) and Gili Gaya provide data on the acquisition of the lexical system. Almost no researcher has looked at the acquisition of Spanish phonology.

TABLE 3-1. SUMMARY OF RESEARCH STUDIES BY AUTHOR AND AGE OF SUBJECTS

RESEARCH STUDIES	1 Year Olds	2 Year Olds	3 Year Olds	4 Year Olds	5 Year Olds	6 Year Olds	7 Year Olds	8 Year Olds	9 Year Olds	10 Year Olds	11 Year Olds	12 Year Olds
Belendez (1978) *19-22 months*	■											
Romero de Ortiz (1978) *2-4.5 year olds*		■	■	■								
Gonzalez (1970) *2-5 year olds*		■	■	■								
Toronto (1972) *3-6 year olds*			■	■	■							
Gili Gaya (1972) *4-11 year olds*				■	■	■	■	■	■	■		
Brisk (1972) *5 year olds*					■							
Rezazadeh (1967) *Grade 1...6-7 year olds*						■						
Peña (1967) *Grade 1...6-7 year olds*						■						
Martinez-Bernal (1972) *5-8 year olds*					■	■	■					
Burt, Dulay, Hernandez-Chavez (1976) *K-2...5-8 year olds*					■	■	■					
Merino (1976) *K-4...5-10 year olds*					■	■	■	■	■			
Kernan & Blount (1966) *5-12 year olds*					■	■	■	■	■	■	■	

Structural Overview of Spanish

Morphology and syntax, the two components on which there is more substantive acquisition data, have their own internal structure. An overview of that structure is presented here to facilitate the reader's understanding of the complexity of each system. The overview should also foster an appreciation of the complexity of the task at hand for the language learner.

The overview will begin with a definition of those components of Spanish on which language acquisition data is available. It will be followed by a brief explanation of the grammatical rules governing those features of Spanish which were investigated.

Morphology

1. **Noun Inflection.** In a noun phrase the article or demonstrative must be inflected and in agreement, both in gender and number, with the noun to which it is attached. Singular feminine nouns or those ending in a generally use the singular feminine article la (the) or the equivalent demonstrative esta, esa or aquella, all ending in a. The decision to use one demonstrative over another is dependent on the relative distance of the speaker from the referred object. Table 2 outlines the basic pattern of agreement between nouns and their modifying adjectives, determiners and demonstratives.

Except for some animal names such as the one in Table 3-2, nouns do not have a choice of gender since gender is inherent in the word. All singular nouns none theless can be inflected for number.

Some nouns do have available other derivational endings or forms of affixation. The -ito, -illo and -ico suffixes added to almost any noun changes its connotation if not its meaning altogether. For example changing carro (car) to carrito is equivalent to the change created by adding the word "little" to the word "car". The addition of -ito can also change the connotation of a message to one of endearment, as is so often evidenced in the pet names given to children by adults or used between husband and wife. For example by adding ito to the name Jorge (George), the affectionate name Jorgito (Georgie) is created.

Two other, more limited, forms of noun inflection which have been researched are the -ero personal agentive to mean "one who + verb" and the -eria place-of-business inflection meaning "a place where + noun is sold". Another personal agentive, the -or form, is used with verbs to transform them into nouns also meaning "one who..." as did the -ero form. Table 3-3 illustrates the forms of noun and verb inflection described above.

TABLE 3-2. PATTERNS OF AGREEMENT BETWEEN NOUNS AND MODIFIERS

NOUN		MODIFIERS		
Form	Example	Determiner	Adjective	Demonstrative
Masculine Singular	gato (cat)	el	rojo (red)	este; ese aquel
Female Singular	gata	la	roja	esta; esa aquella
Masculine Plural	gatos	los	rojos	estos; esos aquellos
Female Plural	gatas	las	rojas	estas; esas aquellas

TABLE 3-3. FORMS OF NOUN AND VERB INFLECTION

NOUN/VERB	PERSONAL AGENTIVE	PLACE OF BUSINESS
Joyas (jewelry)	Joyero (jeweler)	Joyeria (jewelry store)
Carne (meat)	Carnicero (meat man)	Carniceria (meat market)
Cantar (to sing)	Cantor (singer)	

2. Verb Inflection. In contrast to noun inflection, verb inflection is much more complex. It has been described as the most structurally complex form in the Spanish language. The simple verb alone has a total of 46-47 inflected forms which mark a verb for finity, tense-aspect, mode, person and number (Bowen & Stockwell, 1965). Bull (1965) describes the Spanish verb as consisting of three parts, a stem plus two suffixes. Each of the three parts or slots has a definite function. The first slot labels the action, the second marks the mode, and the third indicates person and number. Table 3-4 outlines the verb's structure using Bull's form of organization.

Because of its complexity a number of researchers have singled out the verb as a most effective grammatical category for discriminating and separating groups (Gili Gaya, (1972; Kernan & Blount, 1966; Toronto, 1970).

Syntax. With reference to syntax, some of the research reviewed as a unit the acquisition of the noun phrase, which includes all of the elements described above (Martinez-Bernal, 1972). Researchers also examined the use of simple active declarative sentences, in all of their manifestations, as well as the use of transformed active declaratives. These include negation, interrogation, imperatives and sentence embedding (Brisk, 1972; Gonzalez, 1970; Peña, 1967; Burt, Dulay & Hernandez-Chavez et al, 1976).

Because of space limitations, we will not discuss the various possible structures for the noun phrase, the simple or complex sentence or any of its transformations. We refer the reader to both Stockwell, Bowen and Martin (1965) and Bull (1965). When appropriate, grammatical explanations will accompany references to their acquisition by children.

Critique of the Literature

In reviewing what has been done in Spanish language acquisition, one is especially struck by the divergence found in two areas critical to the task of synthesis:

1) research methodology
2) focus of the study.

Research Methodology.

This review and synthesis of the literature includes data almost exclusively on performance i.e., what subjects actually do

TABLE 3-4. STRUCTURE OF SPANISH VERBS

VERB			SLOT DIFFERENTIATORS		
Infinitive	Finite Conjugated Form	Descriptor	Stem	Mode	Person/ Number
comprar	compramos	present indicative 1st person plural	compr-	a-	mos
vender	vendemos	present indicative 1st person plural	vend-	e-	mos
vender	vendamos	present subjunctive 1st person plural	vend-	a-	mos
vivir	viven	present indicative 3rd person plural	viv-	e-	n

with their language.[2] Linguists generally agree that a speaker's performance is affected by many extraneous factors such as mood, health, false starts, speaker-listener relationship and the like. Therefore performance does not always accurately reflect what a speaker ideally knows about a language.[3]

Additionally, the performance data shows the variety of approaches used by researchers in the data collection phase; from recording spontaneous speech to highly structured elicitation tasks using nonsense words. This being the case, in certain instances determination of age at which certain structures were acquired may have been affected by the type of task used to elicit language from the subjects.

Focus of Available Research Studies. Researchers' focus has also been varied. Each study has looked either at different age groups and/or different socioeconomic groups in different geographical regions and for different reasons. While some studies have looked exclusively at children under five years old (Belendez, 1978; Gili Gaya, 1972; Gonzalez, 1970; Romero de Ortiz, 1978, 1979), others have looked at school-age children beyond age five (Brisk, 1972, 1976; Gili Gaya, 1972; Kernan & Blount, 1966; Martinez-Bernal, 1972, Merino, 1976; Pena, 1967; Rezazadeh, 1967, Burt, Dulay & Hernandez-Chavez, 1976. From this overview it is obvious that some of the developmental norms to be identified are based on one or two studies and are therefore susceptible to criticism or discrepancy as a developmental norm. In looking at the school age child the studies focused either on the general knowledge of syntax subjects possessed upon entry into school (Burt, et, al., 1976; Brisk, 1972; Gili Gaya, 1972; Martinez-Bernal, 1972; Pena, 1967) or else on the subjects' degree of control of the specific aspects or features of Spanish under study (Brisk, 1976; Kernan and Blount, 1966).

At another level of analysis, some studies focused on a cross-section of children in order to identify developmental norms (Gonzalez, 1970; Gili Gaya, 1972; Burt, et. al., 1976). Others traced the development of one child over a period of time in order to probe into the process by which native Spanish speaking children acquire one particular feature of the language (Belendez, 1978; Romero de Ortiz, 1978).

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[2] Kernan & Blount (1966) and Martinez- Bernal (1972) were among the few Spanish language acquisition researchers who looked at the competence of subjects i.e., their knowledge of rules as applied to nonsense words.

[3] For a fully developed discussion of the competence-performance distinction see Chomsky's discussion of "The Development of Grammar in Child Language" in Bellugi, U. & Brown, R., The Acquisition of Language, Chicago. University of Chicago Press, 1964.

While some studies looked at populations in countries where Spanish was the only medium of communication (Gilli Gaya, 1972; Kernan & Blount, 1966), the vast majority examined Spanish language acquisition by bilingual individuals or in communities within the United States (Belendez, 1978; Brisk, 1972; Burt, et. al., 1976; Gonzalez, 1970; Martinez-Bernal, 1972; Merino, 1976; Pena, 1967; Rezazadeh, 1967; Romero de Ortiz, 1979). Even within the United States, different Hispanic populations were examined, some focused on Puerto Ricans (Belendez, 1978; Brisk, 1972; Rezazadeh, 1967; Romero de Ortiz, 1978); others focused on Mexican Americans (Gonzalez, 1970; Martinez-Bernal, 1972; Merino, 1976; Pena, 1967).

The major difference in focus lies in the component or aspect of Spanish that was examined. While some studied syntax (Gonzalez, 1970, Pena, 1967, Rezazadeh, 1967), others looked exclusively at noun phrases (Martinez-Bernal, 1972) and still others exclusively at verbs (Belendez, 1978, Romero de Ortiz, 1978). Burt et. al., focused on all three.

Table 3-5 provides a complete listing and overview of the sources to be reviewed in this paper, highlighting their foci and discrepancies.

For greater accuracy, the findings on Spanish as a native language have been divided according to whether the data was collected in a Spanish speaking country or within the United States in a Spanish dominant or bilingual community. Within each geographic grouping the findings are organized developmentally by language component. The early acquisition of morphology is separated from its later acquisition, and the discussion of morphology in general is separated from the discussion of syntax.

SPANISH ACQUISITION IN A SPANISH SPEAKING COUNTRY

Summary of Findings

The following is a list of the developmental features that have been identified in the speech of native Spanish speakers living in a Spanish speaking country. Children between the ages of 4 and 7 all exhibit the use of:

1. plural and diminutive inflection of nouns,
2. agreement in inflection between nouns and adjectives.
3. the simple past imperfect, present indicative and past preterite tenses,
4. the compound present perfect tense

TABLE 3-5. DETAILED SUMMARY OF RESEARCH STUDIES ON SPANISH L_1 ACQUISITION

LOCALE	RESEARCHERS	DATA ON SUBJECTS			COMPONENTS OF SPANISH UNDER STUDY	PURPOSE OF STUDY
		Age/Grade	SES	Dominance		
USA	Peña 1967	1st Grade	Low	Sp/English Bilingual	Simple active declarative and interrogatives	Compare treatment groups on syntax acquisition
USA	Toronto 1972	3-6 year olds	Und	Spanish Monolingual	Verbs and pronouns; conjunctions and interrogatives	Determine developmental hierarchies; construct syntax score systems
USA	Belendez 1978	19-22 months	Mid	Spanish Monolingual	Verb inflection	Determine developmental pattern
USA	Brisk 1976	1st Grade	Low	Spanish Monolingual	Gender	Determine degree of control; comparison to Argentina
USA	Rezazadeh 1967	1st Grade	Und	Sp/English Bilingual	Various syntactical constructions	Establish 1st grade norms via comparison
USA	Romero de Ortiz 1978	2-4 year olds	Mid	Sp/English Bilingual	Verb inflection	Determine developmental pattern via error analysis
Mexico	Kernan & Blount 1966	5-12 year olds	Low	Spanish Monolingual	Noun and Verb inflection	Correlate experimentally knowledge of rules with age of subjects
Puerto Rico	Gili Gaya 1972	4-11 year olds	Low	Spanish Monolingual	Language functions; sentence complexity	Determine from natural speech knowlege of language & functions at different ages
Puerto Rico	Martinez-Bernal 1972	5-8 year olds	Low	Sp/English Bilingual	Noun and verb; noun phrase	Compare monolingual and bilingual language acquisition; determine early & late developing forms; develop test
Puerto Rico	Merino 1976	K-4	Low	Sp/English Bilingual	Nouns, verbs, pronouns; word order	Determine order of difficulty in comprehension and production

5. present, past and future reference even without the use of the appropriate inflected verb form,
6. the imperative function using intonation and nouns in isolation before the use of the imperative verb form,
7. ser and estar as copulas.
8. present participles with and without the use of ser,
9. passives with the use of the impersonal se,
10. reflexive se,
11. prepositions and personal pronouns,
12. possession with de,
13. increased complexity of syntax with age including increased use of subordinate and coordinate conjunctions,
14. an increase with age of cohesion in dialogue,
15. agreement in inflection between nouns and adjectives.

Discussion of the Findings

As has already been noted in the overview of sources, Gili Gaya (1972), whose data was collected in Puerto Rico, is our only source of information on Spanish acquisition prior to the age of five or prior to a child's entry into school. Since his preschool population was taken from children between the ages of four to seven it is really not fair to include his data in any discussion of early acquisition. Therefore his four to seven year old subjects will be discussed as a group and collapsed with data on morpheme acquisition by Kernan & Blount's five to seven year olds. Kernan & Blount's data was also collected in a Spanish speaking country, Mexico. Both Kernan & Blount's and Gili Gaya's data on morpheme acquisition by children beyond age seven will also be reviewed. Apart from the discussion of morphology, Gili Gaya also discusses function and syntax with reference to his pre-school groups. The most salient features of both syntax and function will be presented here, contrasting it with data from his school age population of eight to ten year olds.

An important methodological difference between Kernan & Blount and Gili Gaya is the former's use of nonsense words in eliciting specific forms of the language for analysis while Gili Gaya only analyzed transcripts made by teachers of spontaneous conversations, transcripts of children describing pictures and vocabulary counts.

Morphology.

Noun Inflection. Using nouns, children at and beyond age four showed evidence of correct pluralization but with some difficulty pluralizing words ending in consonants (Kernan & Blount, 1966). These words form their plural by adding es rather than simply s as do words ending in vowels. Even with the older subjects the es plural morpheme (allomorph) consistently gave subjects greater difficulty. With Gili Gaya's Puerto Rican population there was less of a distinction of plurality, reflective of the Puerto Rican dialect which oftentimes uses an aspirant (h) in place of the required s.

Five to seven year olds using nouns as agentives did best with the -or "active" agentive as in ticador (nonsense word for "one who ticas") (Kernan & Blount, 1966). Beyond the age of seven their performance on the place-of-business agentive (-eria) and the occupation agentive -ero) improved significantly.

In the use of the diminutive form of the noun (-ito, etc.) there was a discrepancy in performance between Gili Gaya's subjects and Kernan & Bloun'ts. The discrepancy might be attributed to their methodology, the dialect difference of their subjects and/or the frequency of use by adults. In spontaneous conversation Puerto Rican children used the -ito diminutive extensively and correctly, in particular with its endearment connotation. It should be noted that this particular inflection is found with great frequency in adult speech in Puerto Rico. On the other hand Kernan & Blount found more than half of their subjects on an average, unable to transform a noun into the diminutive form, again experiencing the greatest difficulty with nouns ending in consonants (e.g. fetor - fetor-cito). In spite of the fact that any form of the diminutive was accepted, this form seemed to give the youngest group some difficulty. Performance however improved significantly with age (Kernan & Blount, 1966).

Adjective Inflection. Adjectives, as part of description used in spontaneous conversation were also found to be in consistent agreement with the noun which they were modifying. With reference to description Gili Gaya found that his subjects described objects in terms of their relative beauty (lindo (pretty), feo (ugly)), their relative morality (bueno (good), malo (bad)), their size (grande (big)), their color, their taste (dulce (sweet)), their cleanliness (sucio (dirty)), their mood (contento (happy), triste (sad)), as well as other physical attributes (cojo (lame)).

Verb Inflection. Verbs were inflected by even the youngest subjects to some degree. Both Kernan & Blount and Gili Gaya found performance on the verb increased significantly with age and that as early as four or five, children were correctly using inflection in a number of tenses. Kernan & Blount's subjects performed best on the past imperfect tense (-aba ending), with no significant difference in performance with age. Gili Gaya also noted the correct use of the imperfect, preceded only by correct use of the present indicative. The third most frequently used form by Gili Gaya's subjects was the past preterite (-o ending). (Kernan & Blount however, did note that with the past preterite their older subjects (8-10 and 11-12) did significantly better.

The compound present perfect tense also reflected a significant difference in performance by older subjects (Kernan & Blount, 1966), but was nonetheless correctly used in spontaneous speech by Gili Gaya's 4-7 year olds. An example of this construction is He cantado (I have sung). In the use of the future inflected form (cantare; I will sing -ria), Kernan & Blount's youngest group did least well and with age showed a significant difference in performance. Gili Gaya however, found that even without the use of future inflection children expressed future intent with the periphrastic construction ir a + infinitive (to be going to + infinitive).

The imperative function was also found abundant in children's spontaneous utterances without the use of the appropriate form. It is obvious that intent and meaning are present even if in fact, the form is not. No data on imperatives was available from Kernan & Blount's work.

Overall, Kernan & Blount's subjects did least well on verb tenses, but showed a "steady progression of correct answers for verbs with increased age" (p.10). For Kernan & Blount "The significant progression in number of correct verb inflections indicates a progressive internalization with age of rules concerning verb tense" (p.11). "By 12 children seem to have command of most of the grammatical rules of the language ...which was well under way in the children of 5-7 years old" (p.12).

Ser and Estar. The two forms of the verb "to be", ser and estar were used as copulas by even the youngest subjects. The younger children fluctuated between inclusion and exclusion of ser and estar, while the older subjects tended to more consistently include it. For example:

Esto aqui es agua.	"This here is water"
Aqui esta la nena.	"Here is the girl"

Another verb form requiring the use of estar is the present participle, i.e., Esta corriendo (He is running). Although it was used abundantly, its use alternated between inclusion and exclusion of estar. The high frequency of the present participle in child speech was attributed to its extremely high frequency in adult speech in Puerto Rico, in contrast to other Spanish speaking countries (Gili Gaya, 1972).

Use of "Se". The reflexive use of se, the impersonal passive with se and the impersonal use of haber (to have) were all evident in Gili- Gaya's youngest subjects. Examples of these include:

Se ponen un pano.	(se reflexive)	They put a cloth (on themselves)
El agua se perdio.	(impersonal passive).	The water spilled.
Esto se hace asi.	(impersonal passive).	This is done this way
Hay una canasta.	(impersonal haber).	There is a basket

Syntax

Possessive. The possessive in Spanish is actually a syntactical structure as opposed to English where it is usually expressed morphologically. It is formed in Spanish with the preposition de (of) followed by the possessor. Two examples are:

de Maria	Maria's
El lapiz de la maestra...	The teacher's pencil...

Performance on the possessive was found to be excellent for all subjects (Kernan & Blount, 1966).

Monologues. Only Gili Gaya reviewed children's use of Spanish syntax. He analyzed spontaneous conversation. Generally speaking the youngest group within the 4-7 year old age range exhibited greater use of egocentric speech, noted by their abundant use of the two first-person personal pronouns yo (I) and mio (mine).

The types of monologue were also noted - the pure monologue where children talk to themselves and the collective monologue. In collective monologue the two interlocutors apparently talk to each other but without really communicating i.e., without any sense of cohesion between sentences. The following is an example of collective monologue where the speakers neither really hear each other nor expect a response:

-Se me esta cayendo un diente. Me va a nacer de nuevo.
"(My tooth is coming out. Another will come in.)"

-Mira aquel nene trepao en la mesa.
"(Look at that boy on [d] top of the table.)"

-En Fajardo hay un perro como ese.
"(In Fajardo there is a dog like that.)"

-Yo tengo las manos sudas [sudadas].
"(My hands are sweaty.)"

There was not even one example of collective monologue with the older subjects.

Complexity. Gilli Gaya's study showed that streams of descriptive monologue moved from the use of independent sentences to describe unrelated events, to the use of juxtaposition of related sentences stated independently i.e., without conjunctions. The third phase was the use of sentences with expressed relationships evidenced in the use of relative pronouns, conjunctions, coordinate and subordinate clauses and adverbial conjunctions. There was a definite increase in semantic complexity as well as linguistic complexity, seen in the quantity and quality of the conjunctions used. In the early stages the conjunctions y (and) and pero (but) were used abundantly. With the older subjects conjunctions to coordinate and subordinate ideas included que (which), para que (so that), porque (because), si (if), pues (since) and the adverbial conjunctions of time cuando (when), and despues (after).

SPANISH ACQUISITION IN THE UNITED STATES

Summary of Findings

The following represents a summary statement of the more salient features of the acquisition of Spanish within the United States,

Noun Inflection.

1. Early acquisition of /-s/ plural.

2. Later acquisition of pluralization of words ending in consonants (-es).

3. Mixed performance for diminutive inflection (-illo), -ito) with poorer performance on the -cito/-cillo diminutive i.e., the form added to words ending in a consonant.

4. Generally poor performance on agentives through age 5.

Verb Inflection.

1. Early acquisition and establishment by age 5 of the present indicative, present progressive, preterite indicative, imperfect indicative, periphrastic future, infinitive and the andar and past progressive tenses.

2. Late emergence, i.e., after age 5, of the conditional, future progressive, inflected future and perfect tenses.

3. Inconsistent findings for the subjunctive mode dependant on exposure of subject to the mother tongue and their proximity to the mother land.

Pronouns.

1. Early acquisition of direct and indirect object pronouns.

2. Redundant use of subject pronouns where verb inflection sufficed.

3. Use of personal pronouns as objects of prepositions.

Noun Phrases.

1. Early acquisition of the particular constituents of the noun phrase including articles, demonstratives, possessives and adjectives.

2. An increase in length of noun phrase with age.

3. Early acquisition (by age 2) of possessive "de".

Verb Phrases.

1. Earlier acquisition of locative adverbs and adverbial clauses in contrast to temporal adverbs and clauses.

Syntax Acquisition.

1. Early acquisition of the six basic sentence patterns using varied acceptable word order.

2. Early use of sentence patterns incorporating direct objects, direct and indirect object pronouns, reflexive pronouns and adverbs.

3. The use of ser and estar in a wider variety of functions with older subjects.

4. The length of utterances increases with age (up to 5 years).

5. Early acquisition of negation expressed with a variety of lexical items.

6. Early acquisition of interrogation introduced by a variety of lexical items.

Natural Disruptions in Language Learning.

Under certain conditions a deterioration or loss of proficiency may occur.

Discussion of Findings

Noun Inflection. The only problem posed by noun inflection for number was in the pluralization of words ending in a consonant. Such words require the addition of -es in contrast to -s which is added to words ending in vowels. Martinez-Bernal's 5 to 8 year olds did significantly better on this latter form, coinciding with Kernan & Blount's findings for native born Mexican children.

Less than one half of the subjects (43%) in Martinez Bernal's study correctly inflected nouns with the -ito/-illo diminutive or any other variant. This too coincided with Kernan & Blount's findings less than one half of their subjects were able to transform a noun into the diminutive form. Here again, as with plural inflection, the greatest difficulty was with nouns ending in consonants, to which -cito/-cillo has to be added.

In the three agentive cases (-eria, -ero, -or) less than 15% of Martinez-Bernal's subjects responded correctly. Martinez-Bernal's procedure of using nonsense words to elicit inflection from subjects must be considered in determining the representativeness of the findings for natural speech development.

Verb Inflection. The Spanish verb, which comprises the most linguistically complex single unit in the language, has been one of the more researched components of Spanish. It is the only component on which there is early developmental data. (Belendez (1978), Gonzalez (1970), Romero de Ortiz (1978) and Toronto (1972)). Table 3-6 represents a synthesis of the findings on the acquisition of verb inflection in Spanish by age.

TABLE 3-6. SUMMARY OF FINDINGS ON THE ACQUISITION OF VERB INFLECTION IN SPANISH, BY AGE (Brisk 1968, Gonzalez 1970, Martinez-Bernal 1972, Belendez 1978)

Age in Years	Present Indicative	Present Progressive	Preterite	Future Periphrastic	Infinitive	Imperfect	Present Subjunctive	Andar Progressive	Past Progressive	Imperfect Subjunctive
2.6	✓	✓	✓	✓	✓					
3.0	✓	✓	✓	✓	✓	✓	✓			
4.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	
5.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Pronouns. In Spanish the form and placement of the pronoun changes depending on whether it is used as a direct or an indirect object. Pronouns used by Gonzalez' 2 year old subjects included both direct and indirect object pronouns. Two examples are:

Alguien lo robo. (Someone stole it) Direct Object Pronoun

Nos dio tres. (He gave us three) Indirect Object Pronoun

In spite of the fact that subject pronouns are not generally needed in Spanish sentences because the verb marks the person and number of the subject, children had a tendency to include them (Brisk, 1972). Personal pronouns used as objects of prepositions were also in use by Brisk's subjects. An example is:

El va con nosotros. (He is going with us)

Noun Phrase Acquisition. Stockwell, Bowen & Martin (1965) identify a maximum of eight possible constituents of the noun phrase in Spanish. Four of them precede the noun and three follow the noun. This schema can be represented as follows:

Todo + Determiner + Adj$_1$ + Adj$_2$ + NOUN + Adj$_3$ + *Adj.* Phrase + Clause

The determiner may include definite articles (el, la) or indefinite articles (un, una), demonstratives (esto, eso, aquello) or possessives (mi, tu). Each adjective slot in turn is filled by a specific type of adjective. The first slot is filled by a limiting adjective including numerals, comparatives, *otro* (another), *mucho* (many), and *poco* (few). The second adjective encompasses descriptive adjectives which refer to the nature of the noun they describe. They include adjectives of color, size, nationality, affiliation or status in society, etc. The third adjective is another descriptive or limiting adjective. (For a fuller grammatical discussion see Stockwell, Bowen & Martin (1965), Chapter 4).

The data on the acquisition of noun phrases (NP's) comes primarily from Gonzalez (1970), Brisk (1972) and Martinez-Bernal (1972).

Brisk found that her 5 year old subjects never produced a noun phrase with more than three constiuents or slots. However, the three constituents encompassed eleven possible combinations. In total they used nouns, articles, demonstratives, possessives, limiting and descriptive adjectives, determiners, adjective phrases and todo (all). In essence every unit of the NP was used but always limited in length to the three constituents.

The most widely used possessive adjective was the first person singular and only sporadically the second and third person possessive determiner forms (tu [your - 2nd person]; su [your - 3rd person]).

Martinez-Bernal's findings support Brisk's findings from another perspective. Sixty percent or better accuracy was noted on noun phrases with three or fewer constituents, totaling eight NP patterns. (A change of word order accounted for two of the eight patterns).

As early as 2 years old Gonzalez noted the establishment of the possessive construction de + noun phrase equivalent to "of + possessor" in English.

Verb Phrase Acquisition. Modification of verbs through the use of verb phrases (VP's) began at age 2.0 (Gonzalez) with the use of single word locations (locative adverbs). By 3.3 subjects were observed to use temporal adverbs and both locative and temporal adverb clauses. By age 5 Brisk's subjects also used such adverbs of extent as muy (very), mas (more), tan (so), mucho (many) and adverbs of affirmation including si (yes), tambien (also).

Syntax Acquisition. Stockwell, Bowen & Martin (1965) describe six basic sentences patterns (i.e. simple active declarative sentences in normal word order containing only one single finite verb). The difference among the patterns lies in the verb used and the choices are among the following:

1. ser or estar,
2. intransitive verbs without a direct object,
3. transitive verbs with a direct object,
4. transitive verbs with direct and indirect object,
5. transitive verbs with a complement and
6. Hay (there is) with an indefinite noun phrase.

Since word order in Spanish sentences is more flexible, even for the simple active declarative sentence, these six basic patterns are able to generate a total of 31 variations (Stockwell, Bowen & Martin, Ch. 2).

Gonzalez' youngest subjects (2.0-2.9) were using patterns with intransitive verbs and transitive verbs in combination with direct objects, direct object pronouns, indirect object pronouns, reflexive pronouns and adverbs. Sentence length averaged from two to four lexical units. The lexical unit, although often a word, could also be a phrase. They were also using both *ser* and *estar* (to be) in combination with noun phrases, adjectives and locative adverbs. By age 5 Gonzalez' subjects averaged four to five lexical units re-combining the same basic elements used early in the acquisition process within the shorter sentences. There was also a greater variety of syntactic patterns using *ser* and *estar*. Brisk's 5 year olds used many of the same patterns observed by Gonzalez including *ser* and *estar* with adjectives, temporal and locative adverbs, transitive and reflexive verbs, the impersonal *hay* and subjectless verbs.

The *estar* copulative outnumbered the use of *ser*. All subjects used reflexive constructions with and without a logical subject. An example of this is *Yo me cai* (I fell down) and *Se fueron'* (They left).

Sentence transformations include those patterns which are derived from simple active declarative sentences. The transformations involve the formation of passives, negatives, interrogatives, exclamations, inversions and ellipses.

Negation and interrogation were both reviewed by Gonzalez and Brisk. Between 2.0 and 2.9 Gonzalez noted the use of negation with *no* (no), *nada* (nothing), *nadie* (no one), *ni* (neither), *tampoco* (neither/nor) and *nunca* (never), all within the context of a full sentence. Brisk's 5 year olds also used negation but only with *no*, *nada*, *ni* and *nunca*.

Gonzalez' subjects began interrogation with the use of information questions beginning with *Que* (what), *Donde* (where), *Quien* (whom), *Para que* (for what), *Cuando* (when), *Por que* (why), *Como* (how), *De quien* (whose) and *Con quien* (with whom). Included in the early stages of questioning was the question form requiring a *yes*-*no* response. This is achieved by simply adding intonation to a simple active declarative sentence in Spanish, as one alternative. Between 3.0 and 3.9 tag questions were added to the repertoire and by 5 the question words *De que* (of what) and *Cuantos* (how many) were added. An example of a tag question is *Verdad?* (Isn't it?). Brisk's subjects used only two question patterns - the *yes*-*no* question with rising intonation and the information question with *donde*, *a donde*, *que*, *cual*, *quien* and *como*. Between these two forms emerged an intermediate form which combined the question word with the *yes*-*no* rising intonation question.

Compound sentences formed by two or more simple sentences connected by a coordinating conjunction were evident in Brisk's findings. She commented on the use of *y* (and), *pero* (but) and *porque* (because) in the formation of compound sentences. However beyond looking at coordinating conjunctions no Spanish language acquisition researcher has really probed in any depth either compound or complex sentence usage.

Complex sentences are formed by the merger of two or more simple sentences connected by a coordinating conjunction, with one sentence or idea subordinate to the other. One of the most discussed elements of the complex sentence is the si conditional clause. Between 3.0 and 3.9 Gonzalez observed the use of si conditional clauses. Merino's 5 to 11 year olds performed poorly overall on conditional items on the scale she developed (Bilingual Language Acquisition Scale), with the third graders demonstrating better productive control than even the fourth graders.

Natural Disruptions in Language Learning. Any discussion of the acquisition of a language other than English in the United States must include reference to the phenomenon of interrupted development and/or retrograde development (language loss).

Under certain kinds of conditions, including amount of exposure and age of introduction to the second language (in this case, English), there may occur an actual loss or deterioration of proficiency in the use of Spanish. This interruption or loss does not usually involve total forgetting of Spanish (as evidenced by the retention, and even the continued growth in the ability to comprehend the languge) but is most evident in speaking proficiency.[4]

Merino's cross-sectional study, which was conducted in San Francisco with children classified as bilingual upon entry into school, noted a decreased ability to use the more complex structures of Spanish, particularly the subjunctive, relatives, conditionals and specific aspects of word order. She found that "the deterioration in the Spanish performance of the older children was a prevalent trend" (p.215). "Language 'loss' appears to be taking its toll on the Spanish development of these bilingual children. By Grade 4, definitely -- but sometimes earlier -- these children began to perform with significantly lower accuracy, particularly in production, in the more complex structures of the Bilingual Language Acquisition Scale" (p.214).

Burt, Dulay & Hernandez-Chavez (1976). also noted in their field test of the Bilingual Syntax Measures I, a measure of oral proficiency in Spanish and English, that those children who appear to have lost almost all of their Spanish are, without exception long term residents of the United States." (p.32). Table 3-7, taken from Burt, et. al. (1976) shows Spanish proficiency levels of Spanish speaking pupils by length of time in the United States.

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[4] For a more complete discussion of language loss, see Dulay, Hernandez-Chavez and Burt's "The process of Becoming Bilingual" in Singh & Lynch, 1977.

TABLE 7
Spanish Proficiency Levels of Spanish Speaking Pupils by Length of Time in the United States, Grades K-2

Length of Time in United States	Spanish Proficiency Level										Total	
	1		2		3		4		5			
	N	%	N	%	N	%	N	%	N	%	N	%
6 months or less	—	—	—	—	3	(21.4)	9	(64.3)	2	(14.3)	14	(2.7)
7-12 months	—	—	—	—	2	(8.3)	16	(66.7)	6	(25.0)	24	(4.6)
13-24 months	—	—	—	—	2	(5.3)	26	(68.4)	10	(26.3)	38	(7.2)
25-36 months	—	—	—	—	3	(7.7)	31	(79.5)	5	(12.8)	39	(7.4)
37 months or more	1	(1.2)	—	—	2	(2.4)	64	(77.0)	16	(19.4)	83	(15.7)
Since birth	17	(5.2)	1	(0.3)	27	(8.2)	212	(64.7)	71	(21.6)	328	(62.4)
Total	18	(3.4)	1	(0.2)	39	(7.4)	358	(68.1)	110	(20.9)	526	(100.0)

NOTE: Percent entries in the body of the table are percents of row totals, while percent entries in the total column are percents of the total sample of 526 pupils.

Of the 328 children who had resided in the U.S. since birth only 71 (21.6%) obtained Level 5 (full proficiency).

A further breakdown of the Burt, et., al. (1976) data shown in Table 3-8 indicates a tentative order of loss of Spanish structures.

TABLE 8
Percent of Pupils Having Maintained Certain Spanish Structures at Three Proficiency Levels, Grades K-2

Proficiency Level Spanish	Word order	Progressive	Auxiliary estar	Copula ser	Copula estar	Present indicative	Infinitive	Adjective gender	Possessive	Indirect object pronoun	Conjunction que	Reflexive	Article	Present subjunctive	Direct object pronoun	Past subjunctive (perfect)
Level 5 III SA (≥ 95-100)	100	100	100	98	99	98	96	97	97	95	89	90	91	92	51	40
Level 4 II SA (≥ 85-94)	100	99	98	98	95	97	89	88	80	75	73	65	61	62	19	9
Level 3 I SA (≥ 45-84)	100	92	91	90	88	76	70	72	47	39	33	19	24	17	4	2

In order for a structure to have been considered maintained, 75% of the subjects had to have used the strucure with 90% accuracy. Level 5, for example, shows that the direct object pronoun and the past subjunctive (perfect) had been maintained by only 51% and 40%, respectively, of the most proficient subjects, Level 4 shows a decreasing number of structures being maintained, with an even smaller percentage of subjects maintaining the direct object pronoun and present subjunctive. The downward trend continues in Level 3.

While this breakdown does provide a tentative order of loss, it should not be assumed that the order is fixed or absolute. Its inclusion here is rather an attempt to document the logical and sequential nature of language loss.

As a result of evidence which points to interruption of language development and/or language loss as a rather direct and predictable result of powerful sociolinguistic processes, some natural disruption in Spanish should not be taken as necessarily reflecting learning dysfunctions.

ERRORS AND STRATEGIES IN THE ACQUISITION OF SPANISH

Errors

In evaluating a learner's language ability, errors are oftentimes cited as evidence of the learner's lack of knowledge about his/her language. However when they are consistent, errors provide evidence of precisely what children know about language and how they are acquiring that knowledge. In a sense they represent a window into how the brain is organizing the speech the child hears. In outlining, developmentally, the features of child language it is also important to determine those imprecise or inaccurate forms which are also indicative of normal development. The inaccuracies or "errors" are as much a part of the normal acquisition process as are the fully developed and differentiated adult forms (Corder, 1967; Dulay, & Burt, 1974; Romero de Ortiz, 1979, among others). Because of the importance of errors in signaling the incomplete generalizations children are making about their language, an overview of the more systematic errors reviewed in the literature will be included. This data should balance the picture of what to expect developmentally from a native learner of the language.

With the exception of Romero de Ortiz (1979), no other researcher has looked exclusively at errors in the acquisition of Spanish. However a number of them have commented on their occurence, particularly on errors and error types that reappeared in their data (Belendez, 1978; Brisk, 1976; Gonzalez, 1970; Martinez-Bernal, 1972; Merino, 1976).

The following list represents a synthesis of the errors appearing in the work of the researchers cited. By category they include:

TABLE OF ABBREVIATIONS

Bel = Belendez, 1978
Br = Brisk, 1972
G-G = Gili Gaya, 1972
Gon = Gonzalez, 1970
M-B = Martinez-Bernal, 1972
Mer = Merino, 1976
RdeO = Romero de Ortiz, 1979

I. Verb Productive Errors:

1. Regularization of irregular verbs (Br; Gon; RdO),

Yo sabo for Yo se.

2. Use of the third person singular instead of the required first person (Bel; Br; Gon; M-B RdO),

Yo tiene for Yo tengo.

3. Use of the third person singular present tense for many verb tenses (M-B),

La vaca come ayer for La vaca comio ayer.

4. Use of the present tense inflection or a non-differentiated form (infinitive) with an adverb of time (e.g. manana - tomorrow; ayer - yesterday) to indicate temporal points of reference other than the present (M-B),

Ayer yo brincar for Ayer yo brinque.

5. General omission of ser and estar in various verb constructions by young subjects (Bel; Br; G-G; Gon),

Alla Jorge for Alla esta Jorge.

6. Ser and estar confusion (Br),

Yo estoy Fermin for Yo soy Fermin.

7. Omission of copular ser (Gon),

Quien este? for Quien es este?

8. Deletion of the auxiliary with the present participle (e.g. El nino brincando - The boy (is) jumping) (Bel; Gon; M-B),

9. Omission of the auxiliary in the passive (Gon)

10. Failure to use the subjunctive when required (Br),

Que no se cae for Que no se caiga.

11. Overuse of the infinitive as an unmarked form of the verb and substituting it for unknown or unmastered constructions (Mer; RdO),

Yo brincar for Yo brinco.

12. Utilization of -ar verb endings with -er and -ir verbs (Bel; Gon; RdO),

Se abro for se abrio.

13. Preponderance of stressed /o/ for past tense, all persons and for all three categories of verbs i.e. -ar, -er and -ir verbs (RdO),

Yo ayudo for Yo ayude

Tu compro for Tu compraste

Papi visto for Papi vistio.

14. Early in the acquisition process, a more consistent distinction between present and past time than between person and number (RdO).

II. Noun Phrase Productive Errors:

1. Failure to use a subject when required (Br),

2. Lack of gender and number agreement between noun and modifier (Br; Gon),

Un dulces for unos dulces

La cuchillo for el cuchillo.

3. Deletion of articles and prepositions where required grammatically but not semantically (Br),

Mira nena for Mira la nena.

III. Pronoun Referent Errors:

1. Lack of gender and number agreement between pronoun and antecedent (Br; Gon),

Los pantalones son mio for los pantalones son mios.

2. Overuse as well as deletion of reflexive pronoun se (Br),

Los carros se ganaron for los carros ganaron.

Ellos van a mojar for Ellos se van a mojar.

3. Use of subject pronoun when the subject was already named (Br; RdO),

La mama ella cocino for La mama cocino.

4. Object pronoun le replaced by la when the indirect object was feminine (Br).

El no la da el carro a Kathy for El no le da el carro a Kathy.

IV. Syntactic Errors:

1. Lack of consistent subject-verb agreement (Bel; Br; Gon) particularly when the subject followed the verb (Gon).

Se cayo dos for se cayeron dos.

V. Errors Crossing Two or More Categories:

1. Failure to use a specific form in an obligatory context i.e. where it was required (Gon),

2. Incorporation of English loan words as stems combined with Spanish inflection (Gon).

Strategies

Strategies, as used in this paper, refer to the generalized types of errors children make. Strategies reflect a systematic and developmental approach to the acquisition of language.

For example, most researchers would agree that all children "overgeneralize" or "regularize" the rules of their language when in English they produce words such as "goed" and "runned" or when in Spanish they use sabo ("I knew") or cabo ("I fit"). It is important to identify strategies together with developmental features and errors in acquiring a language in order to complete the picture of what one can naturally expect from a native Spanish speaker learning his/her language.

The errors listed in the preceding section can be collapsed into categorical strategies based on similarities in how the language is treated by the learner. The following schema of strategies represents a synthesis of the errors found on the previous pages. Next to each strategy are roman and arabic numerals. They coincide with the numerical designation assigned each error. Errors have been assigned the category which seemed most representative, although some might fall under more than one category. The strategies and their corresponding errors include the following (the error categories are taken from Dulay, Hernandez & Burt, (1967) and Dulay, Burt & McKeon, (1980):

I. **Alternation** - the inconsistent exchange of two related forms. Error I.6.

II. **Omission** - omission of grammatical devices or of redundant features, Errors I. 4, 5, 7, 8, 9, 10, 11,; II. 1, 2, 3; III. 1, 2; IV. 1.

III. **Double Marking** - inflection inappropriately applied more than once within an utterance i.e. the use of two similar markers. Errors III. 2, 3.

IV. **Archiform** - the consistent but inappropriate use of one form of inflection or of a word for another. Errors I. 2, 3,; III. 4.

V. **Regularization** - the inflection of an irregular form as if it were regular, i.e. regularizing exceptions. Errors I. 1, 12, 13.

Conclusions:

From the synthesis and review of the literature presented in this paper several principles relating to the acquisition of Spanish as a native language may be set forth:

1) There is a definite evidence of a basic similarity in the language acquisition process of children in Spanish speaking countries and those in the United States.

2) There is evidence of an acquisition sequence which points to the degree of difficulty of linguistic structures.

3) Syntactic structures increase in length and complexity with age.

4) Natural disruptions in language learning may occur under certain conditions.

5) All children make errors when learning Spanish. Consistent errors are evidence of precisely what children know about Spanish.

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CHAPTER 4

CHICANO SPANISH

Rogelio Reyes and Jerry R. Craddock

The purpose of this chapter is to orient California educators and our readers in general to the characteristics of the Spanish spoken by Mexican Americans or *Chicanos*.[1] We will review, summarize and evaluate critically as much of the currently available literature as possible, dealing both with the linguistic features and the social factors associated with Chicano Spanish. We will also discuss the bilingual aspects of speech in Chicano speech communities, geographical varieties, as well as speech variation due to social and stylistic factors.

Most of the studies reviewed here deal with the varieties of Spanish spoken in Texas, California, New Mexico and Colorado, and Arizona, where the majority of this country's Chicano population is concentrated. Varieties from other areas of the United States, however, are also represented, although to a lesser degree.

Before entering into the discussion of Chicano Spanish dialects *per se*, a brief overview will clarify the terms and concepts used in this review for those readers less acquainted with linguistics.

BASIC CONCEPTS AND MAJOR FINDINGS

Dialect and Standard Language

In everyday conversation, the terms **standard language** and **dialect** have unfortunately come to be associated with irrelevant value judgements, to the effect that standard language is "correct speech" while dialect is "incorrect speech." In fact, a standard language is nothing more than a socially and politically fortunate dialect, that through time has acquired great prestige because the nation or nations where it is spoken are important, or because the literature written in it is widely recognized. In other words, everyone speaks a dialect, which means nothing more or less than using the speech of the community to which he or she belongs. People in different regions of a country often speak differently; people of different socioeconomic backgrounds often speak differently, so we say that they speak different dialects. If the speakers of different dialects manage to understand each other with little difficulty, then we say that they speak different dialects of the same language. A language can best be defined as a group of mutually intelligible dialects. Usually one of these dialects is preferred for the theater, radio and television, so it constitutes the standard. The essential point to retain is that dialects are simply different from each other, not better or worse than each other. It would be preferable for all concerned to use the term "standard dialect" rather than "standard language." With luck the perjorative use of the word "dialect" would then disappear.

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[1] The terms "Mexican American" and "Chicano" are used synonymously in this chapter.

Chicano Dialect and Standard Spanish

Several linguistic principles discussed in this paper apply to both standard Spanish and Chicano dialect.[2] The fact that Chicano dialects and Standard Spanish are governed by similar linguistic rules reinforces the underlying universality of linguistic phenomena. In fact, it is only through the variant manifestations of these linguistic principles and rules that dialectal differences become apparent.

A short synopsis of some of the principles that give way to dialectal variants follows.

Monosyllabification

Monosyllabification, a "process whereby adjacent vowel segments are collapsed into a single segment" is observed and described in Standard Spanish as sinalefa.

A similar process in observed in Chicano Spanish, e.g., pa onde la tira? 'where are you going?' is realized phonetically as [p[o]nde la tira?), however the specific rules for collapsing the

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[2] Chicano dialect actually comprises several dialectal varieties.

two vowel segments are different. See pp. 8-9 for complete discussion.

Regularity

Regularity in linguistics means approximately the same thing as predictability in other sciences. If a sound, word, or grammatical construction is formed in an entirely transparent and expected manner, we say it is regular; if it deviates in some way from the expected pattern, then we say it is irregular. The example that comes most easily to mind is the formation of the plural in English: The regular pattern is for an s (in its predictable phonetic shapes) to be added to the singular: cat/cats, dog/dogs, church/churches. There are numerous plurals, however, that fail to fit this pattern, and are therefore considered irregular: goose/geese, child/children, medium/media, etc.

Paradigms are sets of words which are derived from the same lexical case and refer to the same concepts but have different shapes for different functions in sentences. A regular paradigm is one whose members are all predictable according to a general pattern, as for instance, the paradigm of the verb predict: predicts, predicted-- with the endings -s for the third person singular, present indicative, and -ed for the past tenses.

In this instance we speak of paradigmatic regularity (see pp.15-16 for further discussion). If the forms of a paradigm cannot be predicted according to the pattern just described, we say it is irregular as for instance, the verb sing: sings, sang, sung, where the past tense forms are not predictable; or the verb be: am, are, is, where the present tense forms are not predictable.

Paradigmatic regularity is a feature of both Chicano and Standard Spanish. For example, one frequently found pattern in standard Spanish is verb root + ear = infinitive as in the case of chiste 'joke' which becomes chistear 'to joke'.

The same pattern can be observed in Chicano Spanish. However, in Chicano Spanish, paradigmatic regularity may extend to modification of English sound and word structure, so that it fits the rule for verb formation, e.g.,

type [t^hayp] becomes taypear in Chicano Spanish.

Paradigmatic regularity of Chicano Spanish can also be seen in the tendency to produce more regular verb forms than occur in standard Spanish e.g.

TABLE 4-1: Example of Regularization in Chicano Spanish

STANDARD SPANISH	
vives (you live)	vivimos (We live)
vive (he lives)	viven (They live)
CHICANO SPANISH	
vives (you live)	**vivemos (We live)**
vive (he lives)	viven (They live)

In other words the vivemos (Chicano Spanish) form shows more conformity to the other inflections noted than the Standard Spanish form.

Lexical Borrowing and Code Switching

Perhaps the most observable feature (and at the moment, the favorite research topic) of Chicano Spanish is a variety of cross linguistic phenomena. Two of the more precisely defined examples of cross linguistic phenomena (elements of two languages used alternately in discourse) are lexical borrowing and code switching.

Lexical borrowing refers to individual words being used within the context of another language e.g., 'hizo improve mucho' (she improved alot).

Code switching refers to whole phrases, or even sentences being used within the context of another language e.g., 'yo se porque, I went to the hospital to find out where he was at!' ('I know because I went to the hospital...')

(For further discussion of cross linguistic phenomena see pp. 21-24).

GENERAL LINGUISTIC DESCRIPTION OF CHICANO SPANISH

The purpose of this section is to give the reader a general linguistic overview of Chicano Spanish.[3] The particulars will be discussed in subsequent sections.

The general works on Chicano Spanish include Avendaño 1979, García 1977, González Mena de LoCoco 1974, Henriquez Ureña 1938, Lance 1975, Lawton 1974, Lozano 1974, Sanchez 1976, C.A. Solé 1975, Y.R. Solé 1977, Valdés-Fallis 1974.

Following Henríquez Ureña's *El Español en Mexico, Los Estados Unidos y la América Central* (1938), D. N. Cárdenas' "Mexican Spanish" (1975) recognizes five geographical dialects of Mexican Spanish. Within the framework of these five Mexican dialects--particularly those of the "North" and the "Central high Plains"--Cardenas attempts to describe the varieties of Spanish spoken in the southwestern United States. He explains that he emphasizes the Northern and Central varieties of Mexican Spanish because most of the immigration from Mexico to the United States has been from these two geographical areas.

According to Cárdenas, Spanish in the Southwest may be subdivided into four dialectal varieties: those of (1) Texas, (2) New Mexico and southern Colorado, (3) Arizona, and (4) California. His reasons for this four-part division, however, are not always clear.

In his description of Texas Spanish for example, he notes that the pronoun *vosotros* and its corresponding verb forms is replaced with *ustedes* and its verb forms. This phenomenon also, however, is not peculiar to Texas Spanish but is a general characteristic of Mexican and other dialects of Spanish and therefore cannot be used to identify a distinctly Texas dialect.

Similar comments may be made for other features described by Cárdenas as characteristic of the other three dialectal areas of Southwest Spanish. As with other works in this area of study, the importance of Cardenas' study lies in the data presented--the interpretation of these data remain to be further elaborated in the context of general Spanish dialectology. This is not meant to imply that there are not dialectal varieties of Southwest Spanish; but their distinctive features for the most part still remain to be defined.

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[3] Less current terms--and corresponding abreviations--used in this article include: 1) **Chicano Spanish (ChS)**, the varieties of Spanish spoken by Mexican Americans; 2) **New Mexican Spanish (NMS)**, the Spanish spoken by Chicanos in New Mexico; 3) **Person (pers.)**, the grammatical manifestations referring to I/we; thou/you; she, he, it/they; 4) **plural (pl.)**, more than one; 5) **singular (sg.)**, referring to one; non-plural; 6) **Southwestern Spanish (SWS)**, more specific than Chicano Spanish; the Spanish spoken in the former area of Mexico annexed by the United States in 1848; 7) **Standard Spanish (SS)**, normalized or free of dialectal variation.

In the meantime, we believe that possibly a more workable hypothesis with respect to Southwest Spanish dialectal varieties is that these are in effect extensions of Henriquez Urena's Northern dialect of Mexican Spanish. Differences that can be observed between the Spanish of Sonora and Nuevo Leon, for example, will probably also be found between the Spanish of Arizona and Texas. A specific example of this are the terms huerco 'guy' and bolillo, 'Anglo' which are common in Texas and Nuevo Leon but, to our knowledge, rarely heard in Arizona and Sonora.

Ornstein (1975), describes the Spanish of New Mexico in terms of a two-part division--a more archaic variety to the north of Socorro, including southern Colorado, and a more standard-like variety, akin to standard Mexican Spanish as spoken in Mexico. As in the case of Cardenas 1975, however, the criteria for defining these varieties remain unclear, since some of the features of New Mexican Spanish reported by Ornstein are actually characteristic of Mexican Spanish in general and in some cases of other dialects of Spanish as well.[4]

There are, however, some features that distinguish New Mexican-Southern Colorado Spanish and other varieties of Southwest Spanish. Ornstein's data on lexical differences partially bear this out:

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[4] The second person singular preterite forms in -ates/-ites, for example (as in hablates 'you spoke', vivites 'you lived' for standard Spanish hablaste, viviste, respectively) are found in Mexico also.

Another set of endings for the second person singular preterite in -astes/-istes (e.g. hablastes 'you spoke,' vivistes 'you lived') are also cited by Ornstein in his description of New Mexican Spanish. These however, also occur more generally in other Spanish dialectal varieties and therefore cannot be used to identify a distinctly New Mexican dialect. D. Wogan's comments following Ornstein's article (pp.11-12) further bear out his point.

Table 4-2. Lexical Differences between New Mexican-Southern Colorado Spanish and Other Southeast Spanish Varieties

Northern New Mexican Spanish	Other Varieties of Southwest Spanish	English
puela	sarten	frying pan
alverjones	chicharos	peas
albaricoque	chabacan	apricot
silleta	silla	chair

What is necessary in order to properly identify and describe the dialectal varieties of Southwest Spanish is a rigorous isoglossic study of the data so that clusters of features and corresponding geographical areas may be isolated. These clusters and corresponding geographical areas can then serve to identify the dialectal varieties of Chicano Spanish.

Rael's "Associative Interference in New Mexican Spanish" (1975), attempts to analyze certain sound and word structures found in New Mexican Spanish. From the frame of reference of Chicano Spanish as an extension of Northern Mexican Spanish Rael's data could be valuable for a future isoglossic study of the entirety of Chicano Spanish. Many of the forms cited by Rael are also found in the speech of Spanish-speakers in Arizona. Historically, it may be possible that New Mexican influence in Arizona may account for some of the similarities between the two varieties, but it is more likely that both areas developed in parallell as northern extensions of Mexican Spanish. Forms such as tenganos/tengamos "(that) we have" (standard Spanish tengamos) for example, are certainly more widespread than merely in New Mexican Spanish.

Rael's analysis of his data was based on whether they represented "a fusion of two or more words belonging to the same sphere of discourse, as a result of which there arises a new form containing some element of each of the words used" (p. 19), or whether they represent "the alteration of a word due to the association of that word with a certain group of related words to which the affected form does not correctly belong" (p.19).

Rael's approach focuses on the semantic aspects of the data presented rather than on the sound patterns or the word structures themselves. No attempt, for example, is made to look for regular sound correspondences between New Mexican and other forms of Spanish. His concern is with the speakers' psychological association of New Mexican Spanish forms with other forms of Spanish which presumably cause the "interference." Our comments here are intended to clarify the orientation of Rael's study, not to deny the validity of the approach. We only wish to emphasize that the comparative dialectological work remains to be done.

Rael's study, in conclusion, is both valid and useful. But we still need more data in order to identify the formal grammatical associations which have caused the creation of the New Mexican Spanish forms (or more accurately, the Spanish dialectal forms, since it is clear that many of Rael's data are not restricted to New Mexican Spanish). What formal grammatical motivation is there, for example, for the NMS first person plural present subjunctive forms such as téngamos/ténganos with stress on the third-to-last syllable vis-a-vis SS tengámos (accent mark added here to emphasize stress on the second-to-last syllable)? This question will be taken up again under Phonology and Morphology.

Reyes, in "Paradigmatic Regularity, and the Chicano Verb" (1978:34-82), has attempted to explain some of the forms discussed in Rael (1975), among them the first person plural present subjunctive forms with stress on the third-to-last syllable (e.g., tengamos) on the basis of a grammatical association which he calls paradigmatic regularity, following previous research in other languages. Reyes hypothesizes that the structure of a specific grammatical form is associated by the speaker with other forms within the same paradigm, e.g., Spanish téngamos is reviewed by the Southwest Spanish speaker as part of a set of forms, all of which belong to the present subjunctive, as follows:

ténga	tengámos
téngas	téngan
ténga	téngan[5]

This paradigmatic association of the forms leads to the reformation or restructuring of the forms which deviate in some way from the rest of the forms belonging to the same paradigm.

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[5] In this article, we have attempted to use a minimum of linguistic symbols. However, certain symbols are extremely useful and have proven difficult to dispense with: 1) / /, indicates a phoneme or abstract systematic sound segment, regardless of its actual phonetic realization; e.g., English /p/ in /p/ut and o/p/en; 2) [ ], indicates a phone or actual phonetic realization of a phoneme; e.g., English [p']ut (with aspiration or strong release of air); English o[p]en (without aspiration); 3) [ ]/[ ], indicates phonetic variations or different possible realizations of a particular phoneme; e.g., [s]/[š] in que[s]tion/ (as in [s]op 'sop') que[s]tion (as in [š]op 'shop') for an underlying phonemic que/s/tion; 4)→ means 'becomes'; 5)← means 'is form'.

Thus, all forms of the SS present subjunctive of *tener* except the first person plural (disregarding the second person plural which is absent in Southwest Spanish) have stress on the root [ten]. Therefore, the principle of paradigmatic regularity leads to the restructuring of *tengámos*, with stress on the second-to-last syllable, to *téngamos*, with stress on the root [ten] which happens to be where all the other forms of the same paradigm are stressed.

This tendency toward paradigmatic regularity in the grammatical paradigms of Southwest and other dialects of Spanish may actually account for quite a number of other reported forms. Rael himself cites the NMS forms *quero* I want', *queres* 'you (sing.) want,' *quere* 'she/he/it wants' etc. for SS *quiero*, *quieres*, *quiere*,' etc. respectively, and explains them as analogical forms influenced by other forms of the same verb which have the root vowel [e]. Essentially, we agree with Rael's explanation. However, if a specific paradigm sets the context within which analogical change occurs, then forms such as the infinitive *querer*, although they too manifest root vowel [e], are irrelevant to this type of sound change.

According to Lance (1975), "The most interesting point to be made about the Spanish of the informants in this project [in Bryant, Texas] is that they used very few forms that are not also used in other parts of the Spanish-speaking world" (p.37). We believe Lance's comment about Texas Spanish can be generalized to include all of Southwest Spanish, which brings us once again to the question of the dialectal relationship between Southwest Spanish and that of other parts of the world. It is not Lance's purpose to describe this relationship but he does demonstrate through ample documentation that it exists.

Lance's objective is to disprove "comments" to the effect that the Spanish of Mexican Americans is grammatically "corrupt" or "deficient" (p.37).

PHONOLOGY AND MORPHOLOGY

The terms phonology and morphology refer to the study of the sound patterns and the word structure, respectively, of a specific language or of human language in general. Since both of these levels of linguistic analysis are intricately related and are often treated together under the label morphophonology, we have chosen to discuss both types of studies in a single section. We will pay particular attention to works that emphasize stylistic and social variation, and will concentrate on recent research in the field which has appeared since the publication of the annotated bibliography Teschner et al., 1975.

A.M. Espinosa's *Studies in New Mexican Spanish*, Part I: *Phonology* and Part II: *Morphology*, is the most extensive study of any variety of Chicano Spanish. Since its first appearance

(1909), it has remained a classic in this area of linguistic research. The Spanish translation and annotation by A. Alonso and A. Rosenblat--*Estudios sobre el español de Nuevo México, Parte I: Fonética* (1930) and Parte II: *Morfología* (1946) represent a significant improvement over the original by virtue of the extraordinary wealth of documentation from other Spanish dialects brought to bear on New Mexican Spanish phenomena; consequently, the Spanish version of Espinosa's master work will form the basis for our comments.

The most notable aspect of *Fonética* is the abundant data (104 pages, not counting the notes); naturally, the early date of this work means that some crucial methodological questions were not explicitly broached. The reader remains unaware of how Espinosa gathered his data or whether stylistic and social factors affect individual variants. Furthermore, in both parts Espinosa presents a variety of data that are difficult to isolate as specifically phonological or morphological in nature. For instance, NMS *semos* for *somos* 'we are' is explained in *Fonetica*, Section 38, as *deriving from Latin *simus* 'let us be' or *sedemus* 'we sit'. Neither explanation takes into account the possible influence of the Spanish infinitive *ser* 'to be', which, following the pattern of *hacer* 'to do': *hacemos* 'we do', *conocer* 'to know': *conocemos* 'we know', may have given arise to *semos* in the present indicative by analogy. If so, *semos* is the result of morphological rather than phonological pattern.

On the other hand, in *Morfología*, Section 163, numerous variants of conjugated forms of the verb *querer* 'to want' are recorded, which can be better accounted for on phonological rather than morphological grounds, since the sounds involved undergo the same variations in other forms involving the same phonological environments. NMS *quisieron*, *quijieron*, *quision*, 'they wanted' show the same variations (*s*/*j*, *ier*/*ie*/*i*) as the past subjunctive *quisiera*, *quijieran*, *quisiean*, *quisian*, *qujian* '(that) they should want'. In other words, the variants of each form are due to the fact that in NMS *s* and *j* (the latter is probably a pharyngeal voiceless spirant [h] as in Arizona Spanish), as well as *ier*, *ie* and *i*, are interchangeable for underlying /s/ and /yer/, respectively, in the environment represented by those forms.

The shortcomings just mentioned stand out in our more modern perspective; it must be admitted, however, that these two volumes still constitute the cornerstone of our knowledge in the field. Espinosa's work has never been equalled in richness of detail and familiarity with the subject, nor has any other scholar devoted to the study of Southwest Spanish achieved his international renown.

Recent work in the phonology and morphology of Chicano Spanish falls mainly into two categories: 1) purely phonetic studies, in which the precise nature of speech sounds and their distribution in utterances are carefully determined; 2) generative phonological studies, in which the authors seek to develop explanatory rules that account for the phenomena observed.

The two outstanding generative treatments in the field are Reyes (1978) and Sanchez (1974), the latter as yet unpublished. In the first chapter of Reyes' contribution, "Chicano vowel sequences across word boundaries" (1978:6-33), the author observes the manner in which the first of two vowels occurring across word boundaries in rapid conversational style ("allegretto") is either deleted (*pa onde la tira*?→*p*[o]*nde la tira*? 'where are you going? [p. 8]) or converted into a glide (*no se haga*→*no s*[ya]*ga* 'dont't be like that' (p. 12); *lo hice*→ *l*[wi]*ce* 'I did it' [p. 13], within certain syntactic restrictions (detailed on pp. 13-17). Reyes offers an experimental solution that embraces both deletion and glide formation: the two vowels undergo the general process of "monosyllabification", a "process whereby adjacent vowel segments are collapsed into a single segment" (p. 19). He therefore regards diphthongs like [ya] (above) as a single, yet complex, segment, analogous to affricate consonants such as *ch* (č) that involve a sequence of stop + fricative articulations. Important details of Reyes' syllabification scheme remain to be worked out, but in his favor one may mention the insightful way in which this theory of syllabic merger accounts for the preservation of stress even when the stressed vowel is deleted or converted into an (inherently unstressed) glide (pp.26-28): *sacó el otro*→*sac*(wé)*l otro* 'he took out the other one' (p. 13), as well as the fact that in Hispanic prosody vowel sequences across word boundaries normally count as one syllable in a verse, a phenomenon traditionally labeled *sinalefa*.

In Reyes' second chapter, "Paradigmatic Regularity and the Chicano Verb" (pp. 34-80), Reyes perceives a broad pattern of development: the changes evident in the Chicano verb system have tended to produce more regular paradigms, thus the stem vowel *e* of *vivemos* for *vivimos* 'we live' matches that of the other forms of the present indicative, *vives*, *vive*, *viven* (p. 37); the root-stressed 1st person plural forms of the present subjunctive uniformizes both the stress pattern and vocalic alternations (*métamos* for *metámos* 'let us put' alongside *méta*, *métas*, *métan*; *puédamos* for *podámos* 'may we be able' alongside *puéda*, *puédas*, *puedan* (pp.53-57)); and the raising of root vowels as in *pidir* for *pedir* 'to ask' yields a perfectly regular paradigm (pp.71-72). He concludes (p. 80): "Within the framework of a grammar which allows reference to paradigms, it is possible to make sense of the Chicano data from a single point of view, the notion of paradigmatic regularity."

Sanchez (1974) is devoted to a comparison in generative terms between Standard American Spanish and Southwest Spanish. The phenomena recorded for the latter are interpreted as the result of rule changes in the grammar of the former. In the section on "Diphthongization" (pp.64-79) she covers much of the same ground as Reyes (1978:6-33). Vowel deletion and glide formation seem to operate quite similarly in the dialect she describes (see especially pp. 65-66), but the preservation of stress in the complex vocalic sequences that arise from those two processes appear to have escaped her notice. Similar, but not identical, processes operate within words in Chicano Spanish, as Sanchez observes (pp.70-71): *teatro*→[tyátro] 'theater'; *toalla*→[twáya] 'towel'. In particular, as also noted by Reyes 1978:29, the vowel *a* is not normally deleted within the word: *caido*→[kaíđo] 'fallen' (presumably, though Sanchez does not elaborate, words like *baul* also become [baul] 'trunk'); however, cases like *traer* [traer] (alongside the expected treatment in [trai] 'to bring, carry') and *zanahoria*[sanorya] 'carrot' do exist. On pp. 73-77, Sanchez discusses the curiously contradictory tendencies of glide insertion *encía*→[ensíya] 'gum' (p. 74) and glide deletion (orilla [oríya]→[oría] 'shore') in what seem to be identical environments. Her rules treat each process as a separate case, yet a common solution would be clearly preferable.

Consonantal problems occupy pp. 83-102 of Sanchez dissertation.

She notes that utterance-initial voiced stops may be spirantized (i.e., pronounced with prolonged friction rather than abrupt release of air) in Chicano Spanish ([ǥrásyas] for [grásyas] 'thanks'); that Chicano Spanish possesses labiodental [v] alongside bilabial (ƀ), that voiced fricatives are frequently subject to loss (*mucho dinero* [múčwinéro] 'much money' (p. 85), that the fricatives (ƀ) and (ǥ) alternate before back segments (u, [w] as in *aguja* [aƀuxa]/[aǥuxa] 'needle', that the africative *ch* [č] is widely fricativized (→[š]), and that *f* is aspirated before [w] (*fuerte*[→hwérte] 'strong'). It should be noted that approximately equal space is given throughout to related phenomena in Standard Spanish. Her treatment of morphology is less detailed (pp. 109-114), but pertinent observations are made on glide insertion in the conjugation of *-ear* -[yár] verbs (*peleo*→[peléyo] 'I fight' [p.106]); imperfect forms in *-iba* (*traiba* for *traía* 'he was bringing', and, most remarkably, *yo iba ido* for *yo había ido* 'I had gone' (p.107)); the 1st person plural suffix *-nos* that replaces standard *-mos* when the preceeding vowel is unstressed (*comíamos* 'we were eating' [p.108]); and the second person singular preterite type in *-tes* for standard *-ste* (*comites* for *comiste* 'you ate' [p.112]).

Harris (1975) discusses two related morphophonemic problems of Chicano Spanish, the substitution of the 1st person plural ending *-mos* by *-nos* just mentioned in the paragraph above, and the root-stressed forms of the 1st person plural subjunctive (*trabájenos* for standard *trabajemos* 'let us work', *cómanos* for *comamos* 'let us eat'). With regard to the former he observes that the change is, in quite strict terms, morphophonemic, since it is both limited to a morpheme (*-mos*) and conditioned by the phonetic environment (*mos* after a stressed vowel, *-nos* after an unstressed vowel). The latter he considers a typical case of rule generalization by means of the loss of an environmental restriction in the stress assignment rules for verbs.

Saltarelli (1975) criticizes Harris' views (1974) on regularization of Chicano verb forms (*vuelámos* for *volamos* 'we fly') and the reshaping of the 1st person plural present subjunctive (*vuélenos* for *volemos* 'let us fly'), claiming that the two changes are fundamentally morphological in nature, brought about by paradigmatic analogy, a lead that Reyes subsequently, and independently, developed much more fully (1978). Anderson (1976) argues (also against Harris 1974) that verbs like *vuelar*, *vuelamos*, for *volar*, *volamos* 'to fly we fly', illustrate the inversion of an historic phonological rule of diphthongization (/5//wé/) with subsequent restructuring throughout the paradigm. He therefore refuses to admit underlying /o/ in *vuelar*, *vuelamos*, as posited by Harris on the basis of the derivational paradigm *vuelar*/*volador* 'flying, capable of flight'.

Though limited to the Spanish spoken in a single small town (San Antonito, N.M.), Bowen 1976 is by far the single most detailed description of Chicano verb morphology. He provides full paradigms of model verbs, a catalogue of all verbal types (pp. 107-111), as well as detailed phonological and morphological observations on individual forms. It is difficult here to give an adequate idea of the wealth of information packed into this article, so we will only mention a few examples. Though verbs like /asepiar/ for *acepillar* [asepiyár] 'to brush' (p.103) have udnergone glide deletion, they do not quite coincide phonetically with *-ear* types in the infinitive ([pelyár] 'to fight'). However, in the inflected forms it becomes evident that /asepiar/ has in fact adopted the endings of *-ear* verbs, hence /asepiéye/, /asepiéyes/, like /peléye/, /peléyes/, in the present subjunctive. What is remarkable is the fact that a form such as /asepiéye/ 'let him brush' simultaneously bears witness to both glide deletion and glide insertion.

In general, the Spanish of San Antonito appears to preserve an unusually large number of archaic verb forms, e.g./sémos/ for *somos* 'we are' (but see our discussion of Espinosa above), /bíde/ for *vi* 'I saw', /kedré/ for *caere* 'I will fall', /trúxe/ for *traje* 'I brought;, etc. (p. 118). Bowen likewise notes that many verbal innovations tend in the direction of paradigmatic uniformity (p. 117).

Strictly phonetic studies include Phillips (1976), who provides a detailed but impressionistic description of the segmental phonemes used in the Spanish of 31 informants from East Los Angeles. All the usual phenomena are recorded; perhaps most noteworthy are the various strategies adopted to avoid hiatus (two-vowel segments without intervening consonants), as in [réir] or [reyír] for *reír* 'to laugh', [tíyo] for *tío* 'uncle', [oyír] for *oír*, 'to hear', etc. (pp. 86-87), and the various instances of metathesis (sound permutation): [swiđáđ] for *ciudad* 'city', [tryáto] for *teatro*, 'theater', [estwáta] for *estatua*, and the like (p. 88). English interference in the pronunciation of his informants appears to have been minimal, except in inducing widespread use of labiodental [v] for Spanish bilabial [b]/[ƀ] (pp. 75-75; on this point see also Phillips (1972).

Merz has published three items based on her 1977 dissertation devoted to the phonology of 9 female Spanish-speaking informants from Tucson, Arizona. The first (1978) presents the results of her investigation into the realizations of trilled *rr* [r̃]/flap[r]. The data are skillfully presented so that her readers are able to perceive the important correlations that exist between phonetic environment and the particular phone preferred in any given instance. Most notable are the following traits: the high frequency of the voiced/voiceless alveolar fricatives [ɍ]/[ɍ̥] in place of the trill [r̃] in utterance-initial position (59% vs. 13%), and the tendency of the flap [r] to replace the trilled [r̃] between vowels (one informant shows 80% [r] vs. 20% [r̃]). The English retroflex vocoid [R] is virtually absent, except, curiously enough, before a voiceless consonant (3% overall, 14% in one informant), and environment also conducive to a certain amount of deletion (5% overall, 13% in two informants).

In 1979 Merz designed some statistical tables illustrating the realizations of three Spanish sounds that can coincide in Chicano Spanish *f* (→[h], especially before the glide [w], [hwérte] for *fuerte* 'strong'), *j* [x] ([h], [muher] for [muxer] 'woman') and *s* ([z]/[h]/∅, [vámoh for *vamos* 'let's go'). The author projected the frequencies obtained for each variant against three types of variables, social classification (age), style (slow, medium and fast) and phonological environments. With such a small group of informants, it is not suprising that the data revealed no social (age) correlations. On the other hand, the other two variables do affect decisively the realizations of the sounds studied. Merz, by the way, makes the important observation that the variation /s/ [h] correlates with morphological redundancy, so that the first two *-s* plural markers in a phrase like *todas las mananas* 'every morning' are more subject to deletion than the third. Her most recent effort (1980) analyzes the variations [ƀ]/[v], [č]/[š] and [r]/[R] (retroflex vocoid, i.e., English *r*), concluding that while the occurrence of [v] (common) and [R] (rare) may be due to English influence, [š] is an internal development of [č]. In this vein one can also consult the note of Timm (1976) concerning pharyngeal [h] and labiodental [v] as replacements for velar [x] and bilabial [b], respectively, among the group of northern California informants.

Additionally, extremely interesting raw data can be gleaned from certain dissertations such as Domínguez (1974). The dialect studied by Ross (1975) (that of the small, isolated town of San Luis, Colorado) possesses great intrinsic interest. Elías-Olivares (1976) provides some remarks on the use of the formal and familiar 2nd person pronouns (*tu/usted*; pp. 84-89) which constitute an original and insightful application of sociolinguistic theory to a grammatical problem.

SYNTAX

Except for syntactic aspects of code-switching (easily the favorite topic in Chicano Spanish research at the moment) syntax or sentence structure is the most neglected research discipline, as a reading of Floyd (1978b) makes clear. However, Floyd (1978a) does provide statistical conclusions regarding the use of the subjunctive in volitive (le dije que no lo hiciera 'I told him not to do it'), affective (tengo miedo de que no llegue a tiempo 'I'm afraid he won't get here on time') and dubitative (no creo que se deje engañar 'I don't think he'll get fooled') constructions. The proportion of subjunctive forms elicited is remarkably low, ranging from 27% to 14% in the three types mentioned. Her tentative conclusion is that her data may represent a general decline of the subjunctive in Colorado Spanish.

More recently Floyd (1980) observes the absence of the inflected future (cantaré 'I will sing') in the verbal syntax of her university-age informants. Two thirds of the occurring expressions of futurity involved the ir a + infinitive construction (voy a arrear mi bicicleta 'I'm going to ride my bike' [p. 445]) while in most of the remaining third the present tense was used (luego el domigo vengo pa' trás 'then Sunday I['ll] come back' (p. 445), normally in conjunction with adverbial cues (luego 'then', manana 'tomorrow', etc.). The imperfect subjunctive (cantara) and indicative (cantaba) replace the conditional (cantaría 'I would sing') in contrary to fact or hypothetical clauses (estuviera interesado en trabajar con alcohólicos 'I would be interested in working with alcohlics' for estaría etc.; le daba todo lo que pudiera' 'I would give him all I could' for le daría etc. (p.449)), while iba a + infinitive appeared in place of the conditional "to express futurity with respect to a past frame of reference" (pensaba... que... mis padres iban a vivir por todo el tiempo 'I thought my parents would live forever' for...vivirían... etc. (p. 450). She concludes that the developments described are also typical of vernacular Spanish in most parts of the Hispanic world, hence are most likely attributable to internal factors rather than to bilingual interference.

Sánchez (1974:115-140) takes up certain aspects of verb and pronominal syntax. She provides a lucid account of the curious iterative construction está brinqui brinqui 'she's jumping up and down', se está rasqui rasqui 'he's scratching all over', by assuming an underlying construction brinca y brinca, rasca y rasca, in which the final vowel of the first verb has been deleted before the vowel of the conjunction, and the final vowel of the second verb has been made to rhyme with the first portion of the phrase (p. 124). In pronominal syntax, her most significant contribution is the description of detached plural markers as in se los di for se lo di 'I gave it to them', where the antecendent of se is plural and that of lo is singular, or in démenlo for dénmelo 'give it to me', where the plural marker of the verb has been shifted. The former case is particularly fascinating in the way that a latent (in Standard Spanish) plural marker is phonologically actualized (see also Ross 1975:76-78). She also treats the use of the interrogative qué/cuál, the gender of nouns, and the formation of the plural.

Hensey (1976) constitutes an extremely interesting proposal for measuring syntactic variables with possible sociolinguistic applications. On the basis of a rather large oral and written corpus, the author developed a taxonomy of grammatical variables (pp. 32-34) and selected seven of them for a statistical probe (p. 41). The variables recorded range from 6% to 22% of the total instances, with verb morphology, prepositional usage and gender assignment leading the list. He concluded that only a limited degree of English interference was perceptible with regard to the specific variables chosen (p. 43), so that by and large they should be regarded as dialectal traits of the Spanish spoken in El Paso, Texas.

LEXICON (VOCABULARY)

The first comprehensive Chicano Spanish dictionary is Galván/Teschner 1975. It contains some 8,000 entries, a figure that excludes "all... items or particular definitions of items which were already to be found in... widely-distributed dictionaries" (p. v). The compilers have been at some pains to register phonological and morphological variants, for example, jediondo (with initial [x]-; p. 67) for hediondo [edyóndo] 'stinking', créiba (p. 30) for creía 'he believed', etc., and have devoted great attention to phraseology, so that they entry for dar 'to give' occupies more than four columns (pp. 123-135).

As extensive as it is, Galván/Teschner 1977 cannot, of course, be considered complete. Many or even most Chicano speakers could add new bits of information from their own knowledge, while many additional forms no doubt lie buried in the specialized literature on the subject. Just to mention one case, Olstad (1973:57-58) put together a list of 20-odd local terms from southern Arizona to illustrate lexical contrasts between Standard and Arizona Spanish. The following are absent from Galván/Teschner 1977: trinches 'tableware', ubari 'spider', jondear 'to throw', catotas 'marbles' and tolaches 'tools' (they do list talache (sg.) as a variant of talacho 'pick-axe' [p.110]). In the earlier verson of their dictionary, limited to the Spanish of Texas (Galván/Teschner 1975), the authors excluded items found in the literature which they could not verify (p.vi). It is possible, therefore, that they chose not to include the words just mentioned pending verification.

Galván/Teschner found themselves unable to provide specific regional data, due to the geographical vagueness of their sources (p. vi), but have attempted to characterize "all socially marked items... according to the consideration in which they are generally held, whether as slang, as colloquial, as criminal (underworld), as vulgar, as euphemistic, as rustic (rural/small town), etc." (p. vi). Without wishing to deny the usefulness of these informal labels, we would observe that the overlap between categories like colloquial/slang and slang/underworld (jargon) is inevitably quite extensive. Furthermore, the compilers' principle of selection, or, rather, omission, eliminated a large portion of the non-colloquial and socially unmarked (neutral) Chicano vocabulary. One should, consequently, take care not to accept this dictionary as an adequate characterization of the functional vocabulary of Chicano speakers; it is deliberately, and massively, skewed in favor of slang, Anglicisms and dialectalisms. The authors were pursuing, and have indeed attained, eminently practical goals. A scientific lexicon would possess quite different characteristics; each item would be referred to its source, would be entered in context, and would appear in phonetic transcription. All occurring words would be recorded, whether or not they also pertained to Standard Spanish.

In any case, Galván/Teschner's efforts to establish a taxonomy of social markedness are to be applauded. One must, however, search for ways to arrive at empirically verifiable sociolinguistic principles which would allow one to relate lexical selection to social circumstances in a significant way.

One promising suggestion that addresses the problem of correlating lexical choice and social circumstances has been put forth by Sanchez (1976). She has proposed that "the complex of features that constitutes the lexical item must contain those stylistic features that will trigger the choice of particular items" (p.20) and suggests as a first approximation, the features [formal], [loan], and [special], to distinguish five possible renditions of the question 'where are the matches?': (a) [+formal] -- ¿Dónde están los cerillos?; (b) [-formal, -loan, -special] -- ¿On tán los ceríos?; (c) [-formal, + loan, -special] -- ¿On tán las mechas [→Eng. matches]?; (d) [-formal, -loan, -special] -- ¿On tán las trolas?; (e) [-formal, +loan, +special] -- ¿On tán las mechonas? The feature [formal] separates the local vernacular from standard Mexican Spanish, [loan] characterizes Anglicisms, while [special] designates Caló terminology. The choice is triggered by presuppostions of a pragmatic nature, i.e., the concreté social context in which an utterance occurs. "The feature [-loan] in this case presupposes residence near the Mexican border or recent arrival in the Untied States. Thus, the feature [+loan] indicates second, third of fourth generation speakers. The feature [+special] presupposes a male Chicano speaker, generally young, addressing other young Chicano, probably male too. The feature [+formal] presupposes an 'educated' speaker, that is, one whose background includes a certain amount of Spanish language instruction" (p.24). In order to be sensitive to these conditions, the grammar must contain a style index that filters out forms inappropriate to the social context.

A lexicon based on thoroughgoing research into the circumstances of speech acts would provide much more secure judgements about the stylistic character of individual lexical items. At the same time, it must be admitted that Sanchez' proposal seems too schematic, particularly in regard to the vagueness of the features [loan] and [special]. Chicano Spanish contains numerous loanwords of non-English while *mecha* is representative of only assimilated (phonologically and morphologically adapted) English loanwords (or better, a loanshift of Spanish *mecha* 'wick'). Yet it would seem to be the case that the style index would also have to include terms such as *el freeway* (unassimilated) under [+loan]. Is Calo the only possibility covered by [special] or would that feature trigger slang as well, assuming, as most researchers do, that slang and Caló are not entirely synonymous concepts in Chicano Spanish? It seems more than likely that a larger set of stylistic features would have to be assumed.

Craddock (1976) sought to characterize the lexicon used in an extensive corpus of Spanish essays written by secondary and collegiate Spanish-surname students in El Paso, Texas. He found characteristic Mexicanisms such as *boliche* 'bowling alley', *droga* 'debt', etc., as well as a wide range of Anglicisms, ranging from adapted loanwords (*chanza* 'chance, opportunity'), through loanblends (*adventaja←ventaja* 'advantage' +*advantage*), to loanshifts (*aplicacíon* for *solicitud* 'application'). Throughout an attempt was made to distinguish between integrated loans, i.e., those belonging to the speech community at large, and iterferential loans, those involving momentary deviations in the performance of individual speakers (in this case, writers). Attention is also paid to calques (*día de escuela* 'school day') and the morphological and semantic variants not immediately attributable to English interference.

Among lexical studies on Chicano Spanish, the least favored topic is word formation. The only recent effort that comes to mind is Cotton/Sharp (1980), in which the extremely productive verb suffix *-ear* -[yar] is analyzed and abundantly illustrated with hundreds of derivatives. The authors divide their collection of examples into two groups, those based on Spanish words (*periquear* 'to converse, chatter' (p. 434) ← *perico* 'parakeet') and those based on English words (*monquear(to)←monkey (around)* (p. 441). Each group is then subdivided according to broad semantic criteria, e.g., "behavior", "sports and play", and "work", with numerous further classifications. They note that in such areas as team sports and employment, English-based derivatives predominate, while in behavioral categories, Spanish-based derivatives are far more numerous. The derivatives bear witness to extraordinary linguistic inventiveness (*tamboretear* 'to beat up' (p. 436)←'to drum', based eventually on *tambor* 'drum'). It would be interesting to determine the relationship between morphological adaptation of English material by means of *-ear* and the apparently simpler device of unassimilated insertion, (*hizo improve mucho* 'she improved a lot'; according to Elías-Olivares 1976-147:147-155, the former pertains to *español mixtureado*).

Two traditional efforts classify Southwestern vocabulary according to the origins of the words (Spanish, Native American, English, etc.). Espinosa, Jr. (1977-78) surveyed several large collections of Southwestern Spanish folktales, discovering, among other things, a wealth of suffixal derivatives such as *juersada* 'effort' (for *esfuerzo*), *amargoso* 'bitter' (*amargo*), and the like. Ross' (1975) account of the lexicon of the Spanish spoken in San Luis, Colorado, shows many fascinating terms and expressions, such as *íchete* 'cord, thread' (p. 142), *changoya* 'fraud', (p. 150) *huesito sabroso* 'ankle', lit. 'tasty little bone' (p. 155), and *tegua* 'moccasin' (p. 155).

Work on lexical Anglicisms in Chicano Spanish has slackened since the major works of Beltramo (1972) and Teschner (1972) were completed. In collaboration with Porcel (1975), the former devised a test to study bilingual speakers' awareness of English lexical influence. The authors' chief conclusion is that phonologically and morphologically adapted loanwords (*jaiwei* 'highway', *cuilta* 'quilt') are significantly easier for speakers to recognize as Anglicisms than loan translations or loanshifts (*escuela alta* high school; *lectura* 'lecture' for *conferencia*). Social variables (sex, age, length of residence in San Jose, California, relative use of Spanish and English) had no appreciable effect on the results.

The only other recent contribution that has come to our attention is Berkin's (1978) analysis of loanshifts in the Spanish of Chicano migrant workers in Florida (based on her 1976 dissertation), where she categorizes her material into homophonous ('similar in sound only' --*barra* 'bar' (for serving alcoholic beverages)' vs. '(iron) bar'), homologous ('similar in both sound and meaning' --*brocha* 'hairbrush' vs. 'painting, shaving brush') and synonymous ('similar in meaning only' --*vidrios* '(eye)glasses' vs. *vidrio* 'glass') loanshifts.

Perhaps the single most intriguing domain of lexical research in Chicano Spanish is Caló (often labeled *pachuco* in the literature). Three recent word lists share the disadvantages inherent in all amateurish work, in that they include all sorts of heterogeneous material not necessarily relevant either to Caló or to slang in general (*piñata*, *taco*, *tocadiscos* 'record player' and *cochino* 'dirty' are recorded with their usual meanings). Nevertheless, Fuentes/Lopez (1974), Vásquez/Vásquez (1975) and Serrano (1979) contain more than occasional items of interest, such as *genioso* 'one who is easily upset' (Fuentes/Lopez 1974:70; see also Craddock 1976:51), *achicopalado* 'individual hung up on the contemporary youth movement' (Vásquez/Vásquez 1974:19), *desbombado* 'broke' (Vásquez/Vásquez 1974:39), *zambutier* (sic; for -ar?) 'to get further in debt' (Vásquez/Vásquez 1974:80), etc., none of which we found in Galván/Teschner (1977).

The most ambitious and genuinely scientific study of Caló in the Southwest is Webb (1976). He has introduced two important innovations in the field: (1) serious etymological research and (2) systematic assessment of usage patterns among speakers of

Caló. With regard to the latter point, he has recorded his informants' reactions to each alleged Caló form, and, if to be current, he has elicited contexts (complete sentences). His etymological efforts have revealed, more clearly than ever before, the lexical roots of Caló in the international underworld jargon of the Hispanic world, in which Gypsy (Romany) elements play such a prominent role. (For a recent example of his work, see Webb et al. (1978) where he and two collaborators analyze the provenience, word families and semantic range of pocho 'assimilated Mexican-American', chingar 'to copulate', and the pronoun le that occurs in such expressions as ándale 'go ahead', and quiúbole? 'what's up?').

SOCIOLINGUISTICS

The term sociolinguistics refers to a cross-disciplinary area of study which takes into account both linguistic and extra-linguistic factors related to language usage in speech communities--e.g., the situational context of the speech event, the social status of the participants in the speech event, the domain or topic of discourse, and stylistic and other factors.

The objective of the sociolinguistic approach is to understand the relationships between language and the social factors which affect it.

With regard to Chicano sociolinguistics, recent years have witnessed a growing volume of studies on a variety of issues related to Chicano speech in the context of the speech community --e.g., Aguirre (1978); Alvarado de Ricord (1977, 1978); Elías-Olivares (1978) Lawton (1975); Ornstein (1975b); Peñalosa (1975, 1978); Teschner (1977); etc.

Linguistic Variation

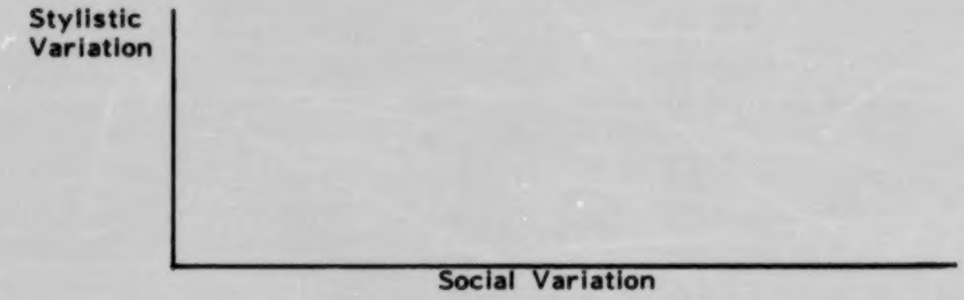
The term linguistic variation has been used in the literature, particularly by Labov, The Social Stratification of English in New York City (1965), to refer to different linguistic forms (Labov focuses on the phonetic) in particular speech community used to represent the same underlying unit of that particular system. Labov further differentiates between stylistic variation and social variation, both of which are part of linguistic variation. Stylistic variation refers to the differences in speech of single individuals which reflect differences in the speakers' role in the speech event--e.g., less formal, more formal, slang, etc.

Social variation, on the other hand, refers to the differences in speech between different individuals which reflect the social status of the speakers-e.g., differences in sex, age, ethnicity, economic status, etc.

Labov's conclusion is that since these linguistic differences can in fact be correlated with concomitant social factors, there is thus no validity to the notion and term free variation, which has been used in the literature with the implication that linguistic variation is random and unpredictable.

Labov's two-dimensional categorization of linguistic variation may be represented schemetically along two axes, e.g.,

FIGURE 4-A. Schematization of Two-Dimensional Linguistic Variation



For the sociolinguistic discussion of Chicano Spanish, we find Labov's theoretical approach useful (with modifications which will be explained in the course of the discussion) and we shall therefore discuss the relevant literature within the context of stylistic and social variation as defined by Labov.

Barker's monograph, Pachuco: An American Argot and its Social Functions in Tucson Arizona (1975), the research for which was done in the latter 1940's, is one of the pioneering studies on this form of Chicano speech (also known as calo). Barker attempts to describe the Pachuco "argot" in terms of a "secret language or conventional slang peculiar to group of thieves, tramps or vagabonds; or more broadly, a cant or class jargon" (p.183). He distinguishes Pachuco from two other varieties of Spanish found in the locus of the research, Tucson, Arizona: 1) Southern Arizona Spanish, and 2) standard Mexican Spanish. Southern Arizona Spanish, according to Barker, is closely related to Sonora Spanish, which in turn is a variant of Northern Mexican Spanish.

Barker follows Henriquez Urena (1938) in his description of Mexican Spanish--that is, a five-part division into dialectal varieties, one of which is Northern Mexican Spanish.

There is a clear indication in Barker's analysis of the linguistic situation in the Mexican American community of Tucson that different forms of speech serve different social functions. Pachuco, Southern Arizona Spanish and standard Mexican Spanish are seen as comprising a social stratification in which Pachuco occupies the lowest level, standard Mexican Spanish the highest.

Barker, furthermore, distinguished Pachuco as an "argot" or "jargon" rather than as a dialect, which implies that the other two varieties--Southern Arizona Spanish and standard Mexican Spanish--are somehow not on the same level of analysis.

In "The Social Functions of Language in a Mexican American Community," Barker further describes his view of the social functions of Pachuco, Southern Arizona Spanish and standard Mexican Spanish in Tucson. In this study he adds another dimension--bilingualism--which involves the interpersonal relations of Spanish speakers with the Anglo community. In all, Barker distinguishes four fields of interpersonal relations in the Tucson Mexican American community: 1) the field of intimate or familial relations, 2) the field of informal relations, 3) the field of formal relations, and 4) the field of Anglo-Mexican relations.

Under the heading "Congruity of the individual's behavior patterns with his social relations," Barker identifies four types of bilinguals, depending on their use of Spanish and English in interpersonal relations.

If we attempt to interpret Barker's data from Labov's two-dimensional framework of stylistic and social variation, it would appear that Barker's four fields of interpersonal relations would correspond to Labov's dimension of stylistic variation, since a single individual presumably can perform in all four levels and thus can adapt her/his speech to the appropriate "field" (or style).

Barker's four types of bilinguals, on the other hand, would correspond to Labov's dimension of social variation; i.e., the differences in speech among different individuals form the same speech community which can be correlated with other social factors--e.g., the speaker's social status.

Crosslinguistic Phenomena

This area of study is difficult to delimit since many linguistic studies of Chicano Spanish include cross-linguistic phenomena along with other aspects of the language.

Studies dealing with Chicano bilingualism in a general way are, for example, Lance (1979); Laosa (1973); Ornstein (1976); Sanchez (1978a, 1978b), Warner (1980). Wentz/McClure (1976), on the other hand, focuses on a particular research problem of Chicano bilingualism--ellipsis or the omission of speech segments understood in context.

Another topic of particular research interest in Chicano bilingualism is code switching or code mixing, the alternate use of two languages or language varieties in the same speech event, in some cases within the same sentence. Code switching is the subject of a sizeable amount of recent literature--e.g., Barkin (1978); Cordova (1980); Elerick (1980); Elías-Olivares (1980); Huerta (1977); Jacobson (1978a, 1978b, 1978c); McClure (1977); Pfaff (1976, 1979); Sánchez (1976, 1978); Timm (1975); Valdes-Fallis (1976a, 1976b); Valdes-Fallis/Pino (1980); the panel discussion on "Code Switching" in Barkins/Brandt 1980:368-387, etc.

Gumperz and Hernández-Chávez (1969) attempt to show that the use of mixed codes in speakers of lower economic status is not due to failure to adjust to a monolingual code but rather to a desire to express a stylistic nuance that is not attainable in a single language. The rules governing this type of code switching are "every bit as complex as those of standard English" (p. 85).

The examples given by Gumperz and Hernández-Chávez are from Chicano speech (and, to a lesser degree, from American Black and Jewish speech) e.g., M--: 'Those friends are friends from Mexico que tienen chamaquitos (who have children)'.

According to the authors, the speaker here, by changing from English to Spanish is implying that only Mexican children are suitable playmates for her children.

The basic point--that code mixing in bilingual communities is rule governed and serves to convey stylistic differences in meaning which cannot be conveyed in a single language is also made in Gumperz (1970) and Gumperz and Hernández-Chávez (1969). The practical implication of these studies seems to be that by "sensitizing" the language of minority students, the latters' educational problems may be somewhat eased.

As important as the question of meaning in bilingual communication is, there is another aspect of cross-linguistic research which must also be considered before the question of meaning can be resolved--that is, a description of the cross-linguistic structures themselves.

With this end in mind, Reyes in "Language Mixing in Chicano Spanish" (1978:83-96) has attempted to identify three syntactically distinct types of bilingual structures as exemplified in Chicano speech: 1) code switching, 2) unassimilated borrowing and 3) assimilated borrowing. The reason for this distinction is based on the nature of the structure themselves.

Code switching involves English and Spanish segments, each of which is internally analyzable without reference to the other language, thus constituting an integral unit in and of itself although linked to a segment in the other language to constitute a larger unit in the utterance--e.g., 'yo sé porque (I know because) I went to the hospital to find out where he was at.'

Unassimilated borrowing on the other hand (Reyes 1978:88), involves the use of an invariable English lexical item in the context of a Chicano Spanish syntactic frame-e.g., hizo improve mucho 'she improved a lot.'

In this example, the lexical meaning of improve is expressed by the English form itself. However, the grammatical categories associated with it, such as tense, mood, person, and number-which would normally be provided in Spanish by inflectional endings--are expressed by the verb hizo. In this case, hizo is empty of lexical meaning, its only function being to express the grammatical categories preterite, indicative, third person, and singular.

Thus, according to Reyes 1978, this Chicano syntactic frame should be formulated as hacer + English bare infinitive; this syntactic frame provides a means of borrowing an English verb without having to modify its form in any way, this being effected through the "auxiliary" verb hacer.

Assimilated borrowing involves the use of an English lexical item adapted in its sound and word structure to fit the Spanish context in which it is used--e.g., puchamos el carro 'we pushed the car.'

Reyes' attempt to identify and describe these cross-linguistic structures, to be sure, leaves a variety of questions unanswered: he doesn't, for example, include the discussion "borrowings" such as Chicano Spanish el freeway/los freeways with variables endings for singular and plural (as in English) thus disqualifying them as examples of unassimilated borrowing, which requires an invariable English form. How are such examples to be classified? This and other question can be asked and hopefully resolved within Reyes' framework. Thus, the problem of identifying cross-linguistic structures is an important one, and one on which the solution of the question of their meaning hinges.

Elías-Olivares (1976), to our knowledge, is the most thorough study to date on the sociolinguistic aspect of Chicano speech. Based mainly on W. Labov's works on linguistic variation, Elías-Olivares identifies three varieties of Spanish spoken in East Austin (the predominantly Chicano barrio or community of Austin, Texas.): 1) Popular Spanish, 2) español mixtureado, 3) Caló.

Popular Spanish, according to Elías-Olivares, is a "macrodialect" of Spanish which constitutes the primary variety spoken by uneducated speakers in Spanish America--e.g., el señor que le estaba hablando 'the gentleman you were speaking to,' in which the relative pronoun que is used instead of the SS prepositional phrase a quien.

Espanol mixtureado is a variety characterized by the use of English segments in a Spanish context, either in their pristine form--e.g., quiero ver las shirts (I want to see the shirts)-- or phonologically and morphologically adapted to the Spanish system --e.g., me regaló una cuilta 'he gave me a quilt'.

Caló, according to Elías-Olivares, "...was popularized by Mexican-American teenagers who in the 1940's showed their individualism, frustration and rebellion by creating their own code,..."

Besides these three varieties of Spanish in East Austin speech community, another speech variety characterized by the constant alternation form one linguistic system to another "within one social context and within the same discourse" was noted in Elías-Olivares' study.

Elías-Olivares' creates a workable framework within which to continue the theoretical discussion concerning Chicano sociolinguistics.

SUMMARY AND CONCLUSION

In the preceding survey, we have attempted to give as broad a view as time and space permitted of the linguistic and social features which characterize the traditional language of the Chicanos, as reflected in the currently available literature. We have included studies dealing with regional varieties, phonology, morphology, syntax, lexicon, and sociolinguistic aspects of Chicano Spanish.

Although we do not pretend to provide definitive solutions to the issues raised in the relevant literature, we have offered critical summaries and evaluations, occassionally suggesting possible alternatives. Our desire throughout has been to encourage researchers and stimulate public interest in a field of crucial importance to educators.[6]

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[6] Last, but not least, we wish to express our sincere appreciation to Patricia Acevedo and Multicultural Program, University of San Francisco, for their support and assistance in the various tasks associated with the preparation of the manuscript for this article.

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CHAPTER 5

TEST REVIEWS

The identification and diagnosis of speech and language disorders in children who are learning English as a second language is a complex task. To identify them accurately, the children must be tested in their native language as well as in English. Tests in the native language should be technically sound and normed on appropriate populations. Tests in English should permit the therapist to distinguish between normal and communicatively disordered English second language learners.

This chapter provides reviews of tests that are currently available in both Spanish and English and which are commonly used by California speech and language specialists.

The tests which have been reviewed were selected based on a survey of speech and language personnel in six California counties with high concentrations of Hispanic students. The counties included are Sacramento, San Francisco, Santa Clara, Fresno, Los Angeles, and San Diego.

In each county school districts with the largest numbers of Hispanic Students (determined by the Home Language Survey) were identified and invited to participate in the survey. If they responded affirmatively, questionnaires surveying the tests used by speech and language personnel in that district were mailed to the District's Pupil Personnel Officer who, in turn, distributed the questionnaires to speech and language personnel.

Approximately one hundred questionnaires were mailed out. Forty were returned and processed.

Project staff then contacted publishers of the instruments and school district personnel requesting copies of tests which had Spanish versions and were used by at least five survey respondents. Twelve tests were received within the project's time limits. They are reviewed below, after a short presentation of basic problems in current testing procedures.

COMMON PROBLEMS IN CURRENT TESTS

1. **Tests in English only.** Tests that have only English language versions are currently inappropriate to identify or diagnose communicatively handicapped LES/NES children, since at present there are no norms for English second language development. Such norms would have to take into account the child's age of arrival in the United States and different degrees and kinds of exposures to English, in addition to the child's or grade. If a LES/NES child is assessed in English only, a low score may simply indicate that the child is still learning English. (See Chapter 2 for characteristics of a nromally developing second language.)

Since at present an English-only assessment cannot distinguish a normal LES/NES child from one who is communicately handicapped no tests which are available only in English are reviewed here. This restriction includes the Peabody Picture Vocabulary Test, cited as one of the most frequently used instruments to identify communicately handicapped Hispanic LES/NES children.

2. **Translated Tests.** Depending on the type of test being used, translation may or may not be a viable device in making instruments accessible to Spanish-speaking children. In certain instances, direct translation of items of an English test without regard for the structure and complexity of the Spanish language may actually result in items that are more difficult than those in the English language version.

Take, for example, an activity which measures auditory memory: a sequence of digits or words is given and the child is asked to repeat that sequence. If, in English, the sequence given is Four, Eight, Five, One, then each word contains only one syllable. A direct translation into Spanish would result in the following group of digits: Cuatro, Ocho, Cinco, Uno. Each word, while a direct translation, now consists of two syllables. Thus the auditory memory task is considerably different in English and Spanish.

When a translation is used, each item must conform to the difficulty level assigned to its peer item in English, and the sequencing of items (i.e. from easy to difficult) must also be maintained.

3. **Target Population.** When a test has been designed for a particular group of Hispanics it may or may not be generalizable to a different group of Hispanics. While most persons involved with testing realize that a test designed for an urban population may not prove to be valid for a rural population, it is important to realize that the Hispanic population is equally heterogenerous. Mexican-Americans in the Southwest may not prove to be valid comparison group for

Mexican-Americans who live in Los Angeles. Mexican-Americans may not prove to be a valid comparison group for Puerto Ricans or Cubans. It is important to review the results given on any test with an eye to the population on which it was normed.

4. **Dialectal Variants.** In addition to careful examination of the norming population, attention must be paid to vocabulary, particularly on instruments which test it either implicitly or explicitly. Dialectal variation is an ever-present concern in using Spanish language instruments. While variation occurs predictably between Hispanic groups such as Mexican-Americans and Puerto-Ricans, it also occurs within groups (Mexican-Americans in Texas vs. Mexican-Americans in California). If no provision is made for accepting or incorporating dialectal variants into a test, results may not prove valid.

While the most crucial area of variation will probably be that of vocabulary (i.e., an orange is translated as naranja by Mexican-Americans and china by Puerto Ricans), variation also occurs in some of the grammatical structures of the language, such as in the use of the subjunctive, and the reflexive. (See Chapter 4 for a detailed discription of Chicano Spanish.)

5. **Assumed Language Proficiency.** Certain kinds of instruments have been normed with reference to linguistic abilities (i.e. "predominantly Spanish-speaking Mexican-Americans, "predominantly English-speaking Mexican-Americans"). It is important to remember that unless an actual measure of the student's relative language proficiency was obtained prior to assigning them to these proficiency sub-groups, these labels are meaningless and may confound results obtained. (See Dulay & Burt 1980 for description of procedures for relative proficiency assessment.)

6. **Linguistic Proficiency of Test Administrator.** While few tests speak to the degree of Spanish proficiency required to perform the administration of the instrument, most state that the administrator should be proficient in Spanish. Additionally, the following skills are necessary for the administration of language tests:

a. Being able to provide a simple and clear explanation of test instructions to the child. (see Test Instructions below for further discussion)

b. Being able to answer questions that a child may have about the test instructions

c. Being aware that dialectal variation can and does occur, and being familiar with areas of the language in which such variation may occur.

7. Test Instructions. If instructions to the child are not provided in Spanish it is important (especially in the case where the child must complete a complex task or where many subtests occur) that a clear, simple and comparable set of instructions be given. These instructions should be developed beforehand, rather than in an impromptu fashion, and should be consistent for each child to be tested.

Tests not included in review some commonly used instruments have not been included in this review, but interested readers can learn more about them by consulting, for example, Pletcher, et. al., A Guide to Assessment Instruments for Limited English Speaking Students, New York: Santillana Publishing Company, 1978. Those not reviewed include: Basic Inventory of Natural Language (BINL) James Language Dominance Scale, Language Asssessment Battery (LAB), and The Crane Oral Dominance Test.

The tests reviewed below are presented in alphabetical order.

BER-SIL SPANISH TEST (1976)

Spanish

Author: Marjorie L. Beringer

Publisher: The Ber-Sil Company
3412 Seaglen Drive
Rancho Palos Verdes, CA 90274

Purpose: To evaluate the functioning of Spanish-speaking children by measuring verbal ability, response of the child to a language he understands, and visual-motor ability.

Age Range: 4 through 12 years

Target Population: Spanish-speaking children

Time to Administer: Not stated in the manual

Test Description: The Ber-Sil is a norm-referenced instrument composed of three separate sections. Directions to the child for each section are on a cassette tape. Section I consists of 100 words in Spanish intended to assess the child's decoding ability.[1] Section II provides the opportunity to observe auditory-motor behavior, or the ability to demonstrate that verbally directed information can be carried out motorically by performing specific tasks. Section III gives a sampling of the child's visual-motor ability. In addition to the 100 vocabulary items in Section I, there are 13 tasks in Section II and 6 tasks in Section III. Because of the continuous nature of the tape, the test may be considered timed, although it is permissible to stop the tape if necessary.

Administrative Considerations: The Ber-Sil is individually administered. It is desirable, but not necessary, that the examiner be proficient in Spanish. Certain materials must be ready for use so the directions on the tape can be followed smoothly, including the picture book, answer sheet, manual, a punched card, a ball, and a pencil.

Administration Procedures: Instructions to the child are taped. The examiner is required to instruct the child to listen to the tape, change the pictures in Section I, and write the child's response on the answer sheet. A list of behaviors that the examiner is expected to observe is provided for Sections II and III. Section I is scored by marking responses as correct or incorrect. A plus is placed next to the tasks the child completes in Section II. The examiner draws a line under one of a number of phrases describing the behaviors being observed. In Section III, Visual-Motor activities are briefly described, and the examiner is to determine whether completion of the tasks is at or below the child's chronological age. Section III requires a human figure drawing, and plates with typical drawings for different ages are provided. Users are also referred to a number of references for more accurate determination of the age level reflected by the child's drawing.

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[1] These words are translations of the first 100 words of the Peabody Picture Vocabulary Test, which have been recorded according to their level of difficulty in Spanish.

Score Interpretation: Section I yields a raw score which is converted to three ranges of percentile equivalents for the child's chronological age: middle range, above 75th percentile, or below 25th percentile. The middle range is considered normal. Nouns and verbs are divided into those typically acquired in the home or the community environment. A preponderance of items missed in one or the other of these two areas may indicate that the child's knowledge of Spanish is lacking because of intermingling of the two languages for specific occasions rather than not having the ability to learn the language according to the author. Language dominance may be inferred by comparing the mental age of the child on the Peabody Picture Vocabulary Test with functioning on Section I of the Ber-Sil. Sections II and III are roughly interpreted according to whether the child is functioning above or below expectancy level for her or his age, or as an average child at that age level. Patterns of the results are provided (e.g. Section I higher than chronologicalage (CA), Section II higher than CA, Section III: writing; lower than CA, geometric figures; lower than CA, human figure drawing; average), with qualitative descriptions of the functioning of a child whose results yield a particular pattern and instructional implications. Tests appropriate for further evaluation are also suggested for each pattern.

Technical Information

Norms: The Ber-Sil was cross-validated in the central part of the Los Angeles Unified School District in Area F. Because of the high transciency rate of that area, the author contends that the sampling is represenative of Spanish speaking chidlren throughout the world. Length of residence in the Los Angeles area ranged from two weeks to entire lifetimes. Children were selected from English as a Second Language classes, regular classes, bilingual classes, child-care centers, and from referrals made to school psychologists. 53.7% of the children were born in Spanish-speaking countries in the Americas other than the United States. Of this population, 39.8% were from Mexico, 5.5% were from Central America, 4.2% were from South America, 3.6% were from the Caribbean, 46.1% of the total were born in the United States. 35.6% of the total were born in Los Angeles. Children sampled were from 4 to 12 years of age. The total number in the sample was not stated anywhere in the manual.

Reliability: Test-retest reliability was computed using the amount of variance in scores with a selected sample of ages from the population evaluated on the first 75 words in Section I. The overall variance ranged from 0 to 5.4%. However, 75% of the children were in the range of 0 to 1.4%. A total of 343 children were included in this sample, ranging from 12 at age 12, to 58 at age 5. As a measure of internal consistency, the standard error of measurement was estimated on the first 75 words and the last 25 words. On the first 75 words for ages 5 through 12, the standard error of measurement ranged from 1.03 to 2.34. On the last 25 words, the range was from .115 to 1.14.

Validity: 45 school psychologists who had used the Ber-Sil responded to a questionnaire sent to school psychologists in areas F,G,H,I, and K of the Los Angeles Unified School District. The responses of the psychologists summarized in the manual were favorable as to the usability and usefulness of the test. Counselors were also questioned. Favorable responses are excerpted in the manual. Content validity is inferred from the gradual decrease in difficulty of the vocabulary test as age increased. Results of the test were found to have no correlation with results from the WISC-R, Leiter, or Stanford-Binet administered in English.

Summary Evaluation

Technical: Procedures for determining norms for the vocabulary test appear appropriate. However, this cannot be meaningfully evaluated unless numbers of children are provided as well as percentages. With most of the children in the sample born in the United States having been born in the Los Angeles area, the author's contention that the sample represents Spanish-speaking children throughout the world must be disputed by the reviewers. Local norms should be established for meaningful comparison, and vocabulary items should be reviewed for local differences in usage. Reliability of the vocabulary test appears adequate, but reviewers felt that more traditional statistical procedures to yield a test-retest reliability coefficient would be more useful. Internal consistency of a test presenting items of increasing difficulty is of questionable utility. Validity of the test by opinion of experts is an acceptable measure, but since it is unknown how many school psychologists' opinions were solicited, the responses of the 45 responding may contain a built-in bias. The authors did not mention any negative comments or percentage responding other than favorably to the areas of test usability mentioned. The content validity inferred from decreasing difficulty of vocabulary items with increasing age is sufficient for a screening device. Overall, too few areas of the test were subjected to technical evaluation by the author for reviewers to comment on general technical aspects of the Ber-Sil. Skills assessed in Sections II and particularly III have been extensively examined by other test researchers and those results could be incorporated in the manual to provide a more solid theoretical framework to justify the technical usefulness of this instrument.

Practical: For the purpose of measuring a childs receptive vocabulary skills, other commercially available instruments are recommended.

Sections II and III of the Ber-Sil (Visual-motor and Auditory-motor subtest) provide an excellent opportunity to assess several different areas. For example, on Section II the child must demonstrate his or her understanding of simple directions, body parts and prepositions. It should be noted that the test items are too few in number for a definitive diagnosis, but the information obtained can be useful in determining possible oral and receptive language deficits. One feature of this instrument which enhances its practicality for the assessment of Hispanic LES/NES children is the accompanying set of pre-recorded instructions in Spanish.

BILINGUAL SYNTAX MEASURE I (1975)

English/Spanish

Authors: Marina K. Burt, Heidi C. Dulay, Eduardo Hernandez-Chavez

Publishers: The Psychological Corporation
757 Third Avenue
New York, New York 10017

Purpose: To measure oral lanquage proficiency in English and/or in Spanish by using natural speech as a basis for making judgements.

Age and Grade: Children ages 4-9 enrolled in grades K-2

Target Population: Hispanic, Asian, and other language minority students.

Time to Administer: Approximately 10 minutes per child.

Test Description: The Bilingual Syntax Measure I (BSM) I uses a series of cartoon-type pictures to provide a framework for eliciting specific linguistic structures via natural discourse. An analysis of the child's speech yields a numerical indicator and qualitative description of the child's structural language proficiency ranging from Level 1, where the child neither speaks nor comprehends the language being tested, to Level 5 where the child is as proficient as his peers who are native speakers of that language. The Spanish and English language versions each contain 25 questions. They are not direct or parallel translations. The test is not timed.

Administrative Considerations: This test is individually administered in English and/or in Spanish, depending on the language background of the child and the type of information described. The examiner must be proficient and literate in the test language.

Administrative Procedures: Questions and responses are given orally; responses are recorded verbatim in the Child Response Booklet or the Respuestas del Nino booklet. Instructions to the examiner are given in color above the questions. Responses are later scored as grammatically correct or incorrect.

Score Interpretation: The BSM yields hierarchical scores which place a child at 1 of 5 proficiency levels in English and/or in Spanish. Instructional suggestions are provided for each proficiency level. In addition, if both test versions are given, a comparison of the proficiency levels will yield a measure of relative proficiency in English and Spanish.

Technical Information

Norms: Norms are not necessary to the use of the BSM. Field test data for descriptive purposes only was obtained by administering 1371 English versions and 1146 Spanish versions of the BSM to a total of 1,603 children in grades K-2 in the five geographic regions of the United States.

Reliability: Kappa coefficients for test-retest reliability were computed for 147 students across grades K-2 who were tested approximately two weeks apart by different examiners. Each student was administered both language versions twice for a total of four administrations per child. The sample was drawn from 11 schools in two unspecified regions of California. All of the children were judged to be Spanish-speaking prior to administration. For the English version, unweighted Kappa coefficients ranged from .39 to .41, and weighted coefficients from .41 to .63. For the Spanish version, unweighted coefficients ranged from .27 to .41, and weighted coefficients from .35 to .77. Test-retest reliability for language dominance (relative proficiency) was computed on 139 students. Unweighted Kappa coefficients ranged from .40 to .54, and weighted coefficients from .50 to .68. Inter-scorer reliability was also computed, since some subjectivity of scoring is expected in determining whether or not a response is grammatical. For two independent scores, unweighted Kappa coefficient for the English version ranged from .61 to .80, and weighted coefficient from .60 to .84. Unweighted coefficients for the Spanish version ranged from .54 to .64, and weighted coefficient from .53 to .68.

Validity: Validity of the BSM rests partly on the theoretical basis underlying its construction. Modern psycholinguistic theory, supported by empirical investion states that children will acquire certain syntactic structures in a systematic manner as they acquire a language, and that syntax varies least among the linguistic domains for speakers of a particular language. Validity is also supported, according to the authors, by factor analytic findings from interrelationships of the various structures elicited by the Spanish and English language versions of the BSM. Finally, the length of time a child resides in the United States should be expected to correlate with her or his level of language proficiency. This was found to be the case.

Summary Evaluation

Technical: Populations and procedures utilized in establishing the reliability of the BSM appear to be appropriate. Kappa coefficients found in reliability studies are somewhat low, but reviewers felt that this could be explained in part by two factors. One is the inter-scorer variable, which would tend to lower test-retest reliability estimates. The other is the possibility of linguistic maturation that might be expected from one testing to the next. Validity of the BSM remains a theoretical issue due to the theoretical nature of the research upon which it is based. However, practical considerations suggest that the validity of this instrument is adequate.

Practical: The BSM I provides an excellent opportunity to observe the child's use of certain linguistic structures. Structured "spontaneous" responses can be obtained for analysis, as well as establishing the child's basic understanding of certain interrogatives. In addition, the drawings lend themselves adequately for the purpose intended.

Use of the skill levels provided is not recommended when dealing with Hispanic LES/NES children suspected of having an oral language handicap.

BILINGUAL SYNTAX MEASURE II (1978)

Spanish/English

Authors: Marina K. Burt, Heidi C. Dulay, Eduardo Hernandez-Chavez

Publishers: The Psychological Corporation
757 Third Avenue
New York, New York 10017

Purpose: The BSM II is an upward extension of the BSM I (see review). As such, it assesses the structural oral language proficiency of older students in English and/or in Spanish by using natural speech as a basis for making judgements.

Grade Levels: Grade 3 and above

Target Population: Hispanic, Asian and other language minority students.

Time to Administer: Approximately 15 minutes per student.

Test Description: The BSM II uses a series of cartoon-type pictures to provide a framework for eliciting specific linguistic structures via natural discourse. An analysis of the students' speech yields a numerical indicator and quantitative description of structural language proficiency ranging from Level I, where the student comprehends little or none of the language being tested, and is unable to speak it at all, to Level 6, indicating that the student has mastered a broad range of the syntactic structures found in the speech of native speakers of the language being tested. Level 6 is divided into 6N and 6S. Level 6N indicates that certain nonstandard forms are used. Level 6S indicates that standard structures are utilized. Both of these divisions represent equivalent degrees of syntactic proficiency. The manual notes that the weight given to 6N or 6S will depend on specific program goals. The Spanish and English versions each contain 26 items. They are not direct or parallel translations. The test is not timed.

Administrative Considerations: This test is administered in Spanish and/or English, depending on the language background of the student and the type of information desired. The examiner must be proficient and literate in the test language.

Administration Procedures: Questions and responses are given orally; responses are recorded verbatim in the Student Response Booklet or the Folleto de Respuestas del Alumno. Instructions to the examiner are given in capital letters above the questions. Responses are later scored as grammatically correct or incorrect, and in some cases as standard or nonstandard.

Score Interpretation: The BSM II yields hierarchical scores which place a student at one of 6 proficiency levels in English and/or in Spanish. If both language versions are administered, the test yields a measure of the degree of a student's relative proficiency and structural bilingualism. Relative proficiency classifications are consistent with both the 1975 Lau Remedies and the 1980 proposed Lay regulations.

Technical Information

Morms: Norms are not necessary to the use of the BSM. Field test data for descriptive purposes only was obtained by administering the English and Spanish versions to 775 students in grades 3-12. The sample was comprised of 60% Mexican-American students, 17% White of non Hispanic origin, 12% other Hispanic, 1.8% Black and 5.8% unspecified. The sample was drawn from 11 cites in the five major geographical regions in the United States.

Reliability: For test-retest reliability, English and Spanish coefficients were from .82 to .96, reflecting considerable stability. The N for the English test-retest was 85, for the Spanish, 80 and for subjects taking both tests to determine relative proficiency, the N was 50. Internal consistency reliability coefficients were computed for three kinds of scores. In Spanish, these ranged from .71 to .82, with an N of 401, and English from .80 to .90 with an N of 500. These are relatively high considering the small number of items that comprised some of the subscores.

Validity: The BSM II has good construct validity. The instrument distinguishes subjects who learned English as a first language from those who learned it as a second language. Native English speakers scored at higher proficiency levels in English, while Spanish speakers scored at higher levels in Spanish. Spanish speakers showed the lowest proportion of Level 6 scores. While over half the Anglos scores at English Level 6, the highest proficiency level, only 15% Hispanic students did so. On the Spanish test, over half the Hispanic students scored at Level 6, but none of the Anglos did. On the contrary, 83% of the Anglos scored at Level 1 on the Spanish version of the BSM II. Validity is strengthened further by the acquisition hierarchy upon which the BSM II is based. Item hierarchies showed that the most difficult items elicited grammatical structures shown by research findings to be acquired late by second language learners. Easier items contained structures shown to be learned early in the second language acquisition process.

Summary Evaluation

Technical: Populations and procedures utilized in establishing the reliability of the BSM II are appropriate. Reliability coefficients on all tests are high, ranging from .80 to .96. Validity of the BSM II is established through its ability to distinguish English first language learners from those who learn

English as a second language and through the independent research on acquisition hierarchies which supports the linguistic relative proficiency classifications resulting from administration of the BSM II.

Practical: The BSM II provides another excellent opportunity for eliciting a spontaneous language sample through the use of pictured items in story form. The BSM II has gone a step futher in developing a more extensive series of questions and accompanying pictures. While the language sample obtained may not be totally spontaneous, it is often easier to obtain a language sample while asking questions. In so doing, the examiner may note the child's understanding of interrogatives, as well as eliciting specific linguistic structures.

Again, use of provided skill levels is not recommended when evaluating Hispanic LES/NES children with possible oral language deficits.

References:

U.S. Department of Education. August 5, 1980. Nondiscrimination Under Programs Receiving Federal Financial Assistance Through the Education Department (Proposed Rules), 34 CFR Part 100. Federal Register 45 152.52052-52076.

U.S. Office of Civil Rights. 1975. Task Force Findings Specifying Remedies Available for Eliminating Past Educational Practices Ruled Unlawful Under Lau v. Nichols.

BOEHM TEST OF BASIC CONCEPTS

(English version 1973, no date available for translated version)

Author: Ann E. Boehm

Publisher: The Psychological Corporation
New York, New York 10017

Translated by: Mrs. Bertha Resendez
Los Angeles City Unified School District
Los Angeles, California

Purpose: The Boehm is designed to measure children's mastery of the concepts considered necessary for achievement in the first years of school (i.e., spatial relationships, quality, quantity).

Age level/Grade level: Kindergarten - Grade 2.

Target Population: While the commercial version was constructed for native speakers of English, no descriptive information is provided for characteristics of the population with which the Spanish translation is to be used.

Time to Administer: A minimum of 10-15 minutes per booklet, 2 booklets included.

Test Description: The Boehm Test is a norm referenced, individually or group administered instrument. 50 pictured items are arranged in approximate order of increasing difficulty and divided evenly between two booklets. Each booklet contains 3 sample questions followed by 25 test questions. All items are administered, and the test is not timed. The Spanish version is a direct translation of the English test.

Administrative Considerations: No specific information is provided for the translated version, however, it is assumed that an ability to speak and read Spanish is a necessary pre-requisite for administration. The Boehm may be administered on two separate occasion.

Administration Procedures: Each item consists of a set of pictures about which statements are read aloud to the child/children by the examiner. The statements briefly describe the pictures and instruct the child/children to mark the one that illustrates the concept being tested.

Score Interpretation: Norms are available for the English version only.

Technical Information: There is no technical information available for the Spanish translation of the Boehm.

Summary Evaluation

Technical: Without appropriate normative information, the appropriateness of the Spanish translation of the Boehm for Spanish speakers is uncertain. Reliability and validity cannot be inferred.

Practical: Because the Boehm is a direct translation of the English test, any attempt to utilize English version norms for scoring the translated version is strongly discouraged. There is presently no way of determining if the translated test items are of par difficulty and/or arranged in order of increasing difficulty.

As a diagnostic instrument the translated Boehm is of limited usefulness, however this test can be used as a criteron referenced test and can help in determining a child's receptive language ability with regard to basic linguistic concepts.

DEL RIO LANGUAGE SCREENING TEST (1975)

English/Spanish

Author: Allen S. Toronto, D. Leverman, Cornelia Hanna, Peggy Ro Rosenzweig, Antoneta Maldonado

Publisher: National Educationa Laboratory Publishers, Inc.
Box 1003
Austin, Texas 78767

Purpose: To screen for mild to moderate language difficulties in English and Spanish.

Age/Grade: K-1 (3 yrs. through 6 yrs. 11 mo.)

Target Population: English-speaking Anglo-American children; predominantly English-speaking Mexican-American children; predominantly Spanish-speaking Mexican-American children.

Time: Approximately 20 minutes per child

Test Description: The Del Rio Language Screening Test (DRLST) is a norm-referenced instrument composed of five separately reported subtests. According to the authors, the Receptive Language subtest assesses comprehension of single nouns and verbs. The Sentence Repetition-Length subtest measures memory for a string of words related in a grammatical sentence as the sentences gradually increase in length. The Sentence Repetition-Complexity subtest assesses ability to repeat relatively short sentences which gradually increase in grammatical complexity. The Oral Commands subtest evaluates memory for increasing numbers of oral commands. The Story Comprehension subtest assesses memory for specific information presented in brief stores. There are a total of 60 items among the five subtests. All items are usually administered.

Administrative Considerations: The test is individually administered in Spanish and/or in English, depending upon the language background of the child. The examiner should be proficient in both languages. Adherence to standardization procedures includes reinforcing each response, whether correct or incorrect, with an encouraging remark.

Administration Procedures: All instructions are given orally in Spanish and/or in English. The child responds in one of three ways, depending on which subtest is being administered. In Receptive Vocabulary, the child responds by pointing to one of three pictures when he is told the stimulus word. In the Sentence Repetition and Story Comprehension subtests, the child responds orally, either by repeating the stimulus sentences, or by answering simple questions about a brief story; the Oral Commands subtest requires that a child perform one to four simple tasks. Items are marked correct or incorrect on the appropriate scoring form (English or Spanish), with total correct recorded for each subtest.

Score Interpretation: Percentile norms are provided for each of the three target groups; the raw score for each subtest is compared to the appropriate age and group norms. For screening purposes, the authors recommend that any child falling at or below the tenth percentile be considered for further language evaluation.

Technical Information

Norms: The DRLST was standardized on three main groups of children: English-speaking Anglo-American, English-speaking Mexican-American, and Spanish-speaking Mexican-American. Selection consisted of 128 subjects for each group, equally distributed across the age range from three years to six years-11 months. The sample was drawn from the population of Del Rio, Texas, and roughly represented the ethnic distribution of that town. All subjects had been informally assessed as "normal" by classroom teachers, special education staff, and the examiners. Subjects were assigned a particular language group only if they spoke that language more than 75 percent of the time at home.

Reliability: Test-retest reliability was computed on each subtest for each language group using the same form of the test exactly two weeks after the first administration, with coefficients ranging from .57 to .88 across the three groups.

Validity: The authors contend that validity is indicated by the fact that scores increased significantly with age, thus demonstrating that language abilities are being measured.

Summary Evaluation

Technical: The norms appear culturally and linguistically appropriate for the groups they are intended to reflect, although the small sample size and restricted geographic area from which subjects were drawn limits generalization to the general population or populations from other areas. Local modification of vocabulary and norms to accomodate regional differences would increase the relevance and usefulness of this test. Reliability is adequate for a screening device, though the sample size and variability limits its meaningfulness; only eight children were included from each of four different age groups. The validity reported by the authors does not closely relate to the purpose of the test, which is to detect language difficulties.

Practical: The Del Rio yields limited results in measuring a childs functioning adequately in the area of single vocabulary word comprehension. A more extensive set of vocabulary items could enhance the usefulness of this test.

The sentence repetition (length complexity) subtest can be useful in determining a child's auditory memory skills. In addition, possible deficits in the syntactic and morphological structures of the child's expressive language may also be revealed by this particular subtest.

While the Oral Command subtest can measure a child's ability to remember oral instructions, the examiner should be aware that certain of the vocabulary words used may be unfamiliar to Hispanic children in this region of the country.

The author states that recall of specific information is measured on the Story Comprehension portion of the Del Rio. While this is true, consideration should be given to the child's understanding of the vocabulary used on this subtest. Limited understanding of certain interrogatives could hinder the child's responses. While the Del Rio can prove to be a useful screening device, it is imperative that any results obtained through the use of this instrument be substantiated and not accepted on face value.

DOS AMIGOS

Verbal Language Scales (1973)

(An English-Spanish Aptitude Test)

Authors: Donald E. Critchlow

Publishers: Academic Therapy Publications
San Rafael, California

Purpose: The test is designed to provide separate measures of a childs language development in English and Spanish by measuring the child's ability to identify verbal opposites.

Age Range: 5 years-0 mos. to 13 years-5 mos.

Target Population: Spanish language background Mexican-American children.

Time to Administer: Each language version requires approximately 10 minutes per student to administer.

Test Description: The Dos Amigos Verbal Language Scales is a norm referenced, individually administered instrument containing two separate sets of vocabulary items, one set for the English version, and one for the Spanish version. The test items are translated Spanish and English word pairs arranged in ascending order of difficulty. The orders differ for each language version. Items are administered until the child completes the scale or misses five consecutive words. The test is not timed.

Administrative Considerations: The test is administered in English and/or in Spanish, depending on the language background of the child. According to the author, the test may be administered by any person who has a reading and speaking knowledge of Spanish and English, as well knowledge of the instructions for administering the scales. The interpretation of the findings should be done by a professional with a thorough knowledge of the test manual.

Administration Procedures: The examiner should first determine the child's understanding of "opposites". Instructions are given orally and in the appropriate language. The examiner reads aloud the stimulus item to the child and records, on a separate score sheet, a "+" if the correct response is given and a "O" if the response is incorrect.

Score Interpretation: Percentile norms and standard scores are provided for each of the two target groups; the raw scores for each target group is compared to the appropriate age category.

The author recommends that any child who scores below the 50th percentile for their age group in both English and Spanish should be referred for further evaluation.

Technical Information

Norms: A total of 1,224 children from kindergarten through sixth grade made up the standardization group. Children were selected from heterogeneous classrooms at each grade level in ten elementary schools in the South Texas area which were judged to best represent the cultural milieu of the Mexican-American population in the United States. Every second child was tested in English and in Spanish. Children were exluded who did not meet the criteria of having Mexican-American ancestry, Spanish as a first learned language, or having been reared in the Mexican-American cultural milieu.

Reliability: Not stated in the manual

Validity: The content of the DAVLS was validated by a panel of experts. Concurrent validity is inferred from purported positive correlation for 30 students between results of the DAVLS and the Gilmore Oral Reading Test.

Summary Evaluation

Technical: Procedures for selecting the standardization group appear appropriate, although procedures for determining ancestry and first learned language etc., were not stated and therefore cannot be evaluated. However, reviewers dispute the notion that the sites selected for field testing in South Texas can be judged by any standard to represent the cultural milieu of the Mexican-American population in the United States. Vocabulary should be reviewed and the test renormed for populations in different areas of the country. Insufficient validation data renders the meaningfulness of any results of this test tentative.

Practical: The Dos Amigos is a relatively quick and easy screening device which can be utilized to determine a child's receptive vocabulary, expressive vocabulary, and associative skills. In addition the Dos Amigos can provide the examiner with information regarding to the child's capability to communicate in the two languages (Spanish/English). Comparison of the scores obtained could indicate strengths and weaknesses in either language and might indicate specific language needs. Any results obtained from this instrument should be substantiated using more in-depth measures to confirm any results. The test was not normed in California, and for this reason, the vocabulary items may not be consistent with those common to California's Mexican-American children.

ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITY

AUDITORY SEQUENTIAL MEMORY (no date available)

Spanish Translation

Translated by:
Rina de Ghersi
Pomona Unified School District
Los Angeles County

Purpose: To assess a child's ability to repeat a sequence of orally presented numbers.

Age levels: 5 years-0mos. to 8 years-11 mos.

Target Population: Spanish-speaking children born in Mexico or the United States.

Time to Administer: Not stated

Test Description: The Spanish translation of the Auditory Sequential Memory subtest of the Illinois Test of Psycholinguistic Ability (ITPA) is norm referenced. There are a total of 28 items, consisting of two to eight random numbers. Items are only administered until a ceiling of two consecutive incorrect sequences has been reached.

Administrative Considerations: This subtest translation of the ITPA is individually administered. Although no specific information is available for the translation, it is assumed that an ability to speak Spanish is a necessary prerequisite for administration. Familiarity with administrative procedures is important, and a setting free of auditory distraction is essential.

Administration Procedures: The numbers are presented orally at one-half second intervals. The child repeats the numbers. If the sequence is repeated incorrectly the examiner gives a second trial of the same sequence of numbers. Regardless of whether the second trial is repeated correctly, the examiner goes on to the next sequence of numbers. If the first trial is repeated correctly, credit is automatically given for the second trial and the next sequence is presented. Thus, two points are possible for each of the 28 items. The test is discontinued when two consecutive items (i.e. four trials) have been missed. Responses are scored pass or fail for each trial on the answer sheet beside the appropriate sequence.

Score Interpretation: Total correct responses are compared to age and birthplace norms which include mean and median responses of the two norming groups, as well as the groups combined.

Technical Information

Norms: From four to six Spanish-speaking students born in Mexico and the United States were tested at each of the four one-year intervals for ages 5-0 to 8-11 for a total of 36 children. No other population characteristics are available at the time of this review.

Reliability: Not available

Validity: Not available

Summary Evaluation

Technical: There is insufficient technical information to providing a basis for judging the appropriateness of this translation for California populations of Spanish-speaking students. More information and a considerably larger sampling is necessary.

Practical: When utilizing this instrument in the examiner should be careful not to depend on the English standardized norms in recording scores. Little consideration was given to syllable count on the Spanish translation and thus the norms are not valid. Given the instrument's present form and limited technical information, it has little practical use.

LANGAUGE ASSESSMENT SCALES

LAS I (1977, Revised)

English/Spanish

Author: Edward A. De Avila
Sharon E. Duncan

Publishers: Linguametrics Group, Inc.
3100 Kerner Blvd.
San Rafael, California 94901

Purpose: To provide an overall assessment of a student's linguisic ability in English and Spanish. The author state the test can provide a measure relative linguistic proficiency as well as identify specific difficulties (i.e., sound production, auditory problems, and lexical weakness).

Age Range: Grades Kindergarten - 5th

Target Population: Spanish language background, Latin-American children.

Time to Administer: Each language version requires approximately 20 minutes to administer.

Test Description: The LAS is a norm referenced, individually administered instrument composed of five separately reported subtests.

(1) The Sound Discrimination subtest determines a child's ability to discriminate between similar sounding phonemes. (2) The Lexical section of the LAS is designed to measure a child's ability to identify verbally a series of pictures items of varifying levels of difficulty. (3) The Phonemes section of the LAS is designed to determine a child's "encoding" skills in regard to phoneme and allophone production. (4) Sentence Comprehension is designed to assess a child's understanding of syntactic rules. (5) The final subtest, the Production (Story Telling) section, rates the child's inclusion and use of essential syntactical elements, as well as his/her overall ability to communicate in the desired language.

The two separate versions of the LAS are not direct translations.

Parts 1, 2, 4 and 5 are pre-recorded on cassette tape in both Spanish and English.

Administrative Considerations: The test is administered in English and/or in Spanish, depending on the language background of the child. According to the authors, the test may be administered by any teacher (or other school personnel qualified to work with students) who speaks the language of the test.

Administration Procedures: Instructions should be read thoroughly by the examiner before attempting to administer this test. Materials necessary for administration are: the test manual, the pre-recorded cassette tape, scoring sheet and a cassette tape recorder. In Part I (Sound Discrimination), the child is instructed to listen to the tape and determine whether or not a "minimal pair" set of words are the same or different. Responses are recorded on the test protocol. In Part II (Lexical), the child is instructed orally by the examiner to name a series of 20 pictured items of varying difficulty. In Parts I, II, III & IV, incorrect items are recorded by placing a check mark by the incorrect item. Correct responses are not marked. In Part III (Phonemes), the child is again instructed to first listen to the tape, then repeat exactly what is heard. A total of 36 items are presented in which specific phonemes or allophones are noted and scored according to appropriate production. In Part IV (Sentence Comprehension), a stimulus sentence is presented (on tape). The child responds by pointing to one of three pictures which best represents what was heard. In Part V (Oral Production), the child first listens to the story presented on the tape and then retells the story. The child's response is recorded verbatim. A series of 10 "probe" questions are provided in the event a substantial language sample is not obtained initially through the retelling. Approximately 50 words is considered to be a substantial sample.

Score Interpretation: The LAS yields a combined score which places a child at one of five proficiency levels in English and/or in Spanish: Level 1, minimal production; child produces only isolated words and expressions. Level 2, fragmented production; production is limited to a few isolated phrases and fragmented simple sentences. Level 3, labored production; complete sentences are produced with errors in syntax and fact. Level 4, near perfect production; production is native-like in fluency. Level 5, perfect production; complete sentences which are coherent, syntactically correct, and accurate.

Technical Information

Norms: The LAS was standardized on 105 Spanish speaking children ranging from 5 to 12 years of age from Mexican-American, Latin-American, and Puerto-Rican backgrounds.[1]

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[1] The English-speaking sample is based on data collected in the Southwest.

Reliability: The inter-rater reliability coefficient for the Phonemes section was .987. For the Pairs subscale, inter-rater agreement was .975. The inter-rater reliability coefficient for the Lexical subtest was .87. Inter-rater agreement on the Production section was studied by age level, with coefficient ranging from .85 to .95. No statistically significant correlation was found between LAS total score and age level. Inter-scale correlations ranged from .123 for Comprehension and total score to .768 for Comprehension and Phonemes in the English version, and from .141 between Comprehension and Total Score to .705 for Phonemes and Pairs in the Spanish version. Internal item consistency was computed on a sample of 325 children from the various age groups. Data pooled from several studies showed generally high internal reliability.

Validity: The LAS was shown to discriminate limited- English speaking from fluent English-speaking children at the .001 level of confidence or beyond in all subtests in two different studies conducted by the authors. No other validity studies are reported.

Summary Evaluation

Technical: Normative information provided in the manual is insufficient to determine its utility for regional usage. Local norms should be constructed for most meaningful interpretation of the data. Reliability of the test as shown by inter-rater agreement and internal consistency was considered exemplary by the reviewers. Correlation between age and test scores was lacking. Validity of the LAS appears adequate for a test of language proficiency.

Practical: The LAS is designed as a proficiency test and thus, its usefulness as a screening or diagnostic instrument for the assessment of Hispanic LES/NES children with possible language deficits is somewhat limited.

The minimal pairs subtest is designed to measure a child's ability to discriminate between similar sound phonemes. The limitations of this subtest center around the selection of test items, since only those phonemes which can be predicted to cause some confusion between English and Spanish are included.

The Lexical subtest also has limitations as a measure of a child's expressive vocabulary skills due to the small item selection.

The Phonemes subtest of the LAS can only yield a brief and sketchy determination of a childs articulation skills. However, this subtest can be utilized to observe how accurately a child can reproduce orally what he hears.

The Sentence Comprehension subtest is designed as a receptive measure of syntax. There are only ten items on this subtest, which is less than adequate even as a screening device. The results may be contaminated by unfamiliarity with the vocabulary words included on this subtest.

The Production portion of the LAS can prove to be the most useful. An adequate language sample can often be obtained. Use and analysis of the language sample should be conducted by bilingual professionals who are well versed in the predictable types of phonological errors often exhibited by Hispanic LES/NES children learning English as a second language. The use of available norms is discouraged.

The use of pre- recorded instructions and item presentations is an advantage of the LAS.

LOS NINOS (1978)

A SCREENING TEST OF COMMUNICATIVE DISORDERS

English/Spanish

Author: Marybeth Crosland-Real

Publishers: Office of Los Angeles County Supt. of Schools
Division of Special Education
9300 E. Imperial Highway
Downey, California 90242

Purpose: To identify potential linguistic problem areas where additional in-depth assessment is needed by establishing an overview of Spanish and English language skills.

Grade: Kindergarten

Target Population: Anglo-American; predominantly Spanish-speaking Mexican-American, English/Spanish speaking Mexican-American.

Time to Administer: Not stated in manual

Test Description: Los Ninos is a locally-developed norm-referenced instrument in three parts. Part I assesses receptive and expressive language in four subtests including vocabulary, prepositions, verbs, and body parts. Part II, Memory and Sequencing, consists of digit repetition and sentence repetition. Part II, Association and Comprehension, consists of three subtests: association, a short story with questions, and a section of five reasoning questions. The Spanish and English versions are parallel translations. The entire test consists of 107 items, all of which are administered. No portion of the test is timed.

Administrative Considerations: The test is individually administered. Examiner-examinee rapport is an essential prerequiste to optimal performance. If both test versions are to be administered, they should be given on separate days by an individual fluent in both Spanish and English. One entire language version should be administered in one session.

Administration Procedures: Subtests are to be presented in the order in which they are found on the protocol. Instructions and stimuli are given in English or Spanish, as appropriate to the language version being administered. In Part I, the receptive language items require that the child point to the appropriate picture in response to a verbal stimulus. The expressive portion elicits a response via structured natural discourse, e.g.

Q:*Where is the bear?* A:*In front of the box.* In Part II, the child is asked to *Say what I say/Di lo que yo digo*. Digits and sentences must be repeated verbatim. In Part III- Association, the examiner verbally presents the stimulus and optimal responses, e.g. *Where does a plane fly?*; *in the water*, *in the sky*, or *in a book*? Responses are recorded verbatim. In Part III-Story, the child is instructed to listen to the story and answer a series of simple questions. In Part III-Questions, responses are recorded verbatim to such questions as, *What are your eyes for?*

All items are scored as correct or incorrect. Scores are recorded separately for each portion of each section or subtest.

Score Interpretation: Subtest scores are transferred to the Cumulative Record Sheet, which provides a profile of the child's performance in both languages, receptively and expressively in specific linguistic areas. From this profile, inferences may be made as to whether and in what areas additional diagnostic testing may be necessary. Percentile norms are provided for the cumulative score according to the language group of the child.

Technical Information

Norms: Los Ninos was standardized on samples from three populations of children: 280 English-speaking Anglo-Americans, 201 predominantly Spanish-speaking Mexican-Americans, and 140 relatively bilingual Mexican-Americans, according to the author. The means of establishing language-group membership were not noted. An analysis was done by sex within the language groups, but age and other demographic data were not included.

Reliability: Test-retest reliability was established for each subtest, using 115 randomly selected subjects from each language group. Reliability coefficients ranged from .35 for Body Parts (receptive) to .88 for Vocabulary (expressive). The overall reliability coefficient was estimated at .87. All results were significant at the .001 level of confidence.

Validity: The author attempted to establish validity by correlating scores with the Del Rio Language Screening Test. The author states that "insofar as the Del Rio Language Screening Test might be a valid external criterion, and owing to the small number of subjects selected a priori from each of the Language Dominace groups for validation, the computed validity coefficients have little meaning or are inconclusive." The author suggests that the high test-retest reliability "might be constructed as indirectly supportive of the test's validity."

Summary Evaluation

Technical: The lack of demographic data on the standardization population severely limits the usefulness of the technical data.

However, the norms appear generally appropriate for the groups they are intended to represent. The small numbers of individuals included would tend to make suspect generalizations inferred from the norms.

Generally, the statistical procedures appear appropriate. Insofar as the test does not purport to provide information beyond suggestions for the direction of further assessment, the test seems adequate to the purpose for which it was constructed. As has been noted, the test was locally developed. This implies that the population for which it is intended is rather restricted.

Practical: The Los Ninos was written and designed by a speech and language specialist for use with Hispanic LES/NES children. According to the author, Los Ninos is the most useful tool available at this time. The Los Ninos can provide a skilled speech and language specialist with considerable information about a child's general ability to function in several different areas of speech and language. The Los Ninos can be an excellent screening device when the results are interpreted carefully.

The receptive portion of Part I contains a short list of vocabulary items, less extensive than other commentially available instruments but adequate as a screening device. Part I also provides an opportunity to observe a child's ability to understand interrogatives and to express himself through structured discourse. Part II provides a screening tool for determining short term memory for digits, sequences, and sentences. Part III screens longer term memory and story comprehension.

SCREENING TEST OF SPANISH GRAMMAR (1973)

Spanish

Author: Allen S. Toronto

Publisher: Northwestern University Press
1735 Benson Avenue
Evanston, Illinois 60201

Purpose: To identify Spanish-speaking children who do not demonstrate native syntactic proficiency commensurate with their age.

Age range: 3 years-0mos. through 6 years-11 mos.

Target Population: Mexican-American and Puerto Rican children

Time to Administer: Approximately 30 minutes.

Test Description: The Screening Test of Spanish Grammar (STSG) is a norm-referenced test. It contains two separate subtests measuring receptive and expressive syntactic skills, and yielding separate receptive and expressive syntax scores. Each subtest measures 23 syntactic structures. There are a total of 46 items per subtest, and 92 items overall.[1]

Administrative Considerations: The examiner must be proficient in Spanish.

Administration Procedures: In the receptive language subtest, four pictures are presented to the child. Two sentences are orally given, then the one marked by an asterisk is repeated and the child indicates the appropriate picture. The remaining sentence is then repeated, and the child again indicates the appropriate picture. In the expressive subtest, the child is shown two pictures. Two sentences are given, and the child is asked to repeat the sentence appropriate to the picture indicated by the examiner. Each response is scored as correct or incorrect (certain substitutions are counted as correct). The test is not timed.

Score Interpretation: Each subtest yields a raw score which is converted to a percentile range according to the child's age level and ethnic group. Children who score at or below the second standard deviation from the mean should be referred for further language evaluation.

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[1] The author suggests that certain nouns be changed to accomodate local differences in usage.

Technical Information

Norms: The STSG was standardized on 192 children, 96 of Mexican and 96 of Puerto Rican descent, between the ages of 3 years and 6 years and 11 months. Each ethnic group contained 12 males and 12 females in each year group. All children had normal hearing and were judged as being of normal intelligence by their teachers and by a nonverbal language test. Spanish was the primary home language for both children and their parents. All had been in the United States for at least two years and resided in poor urban neighborhoods in Chicago. Subjects were obtained from public schools and bilingual day-care centers in Chicago.

Reliability: Test-retest reliability was estimated on 24 children, 3 from each age group for each ethnic group. Both tests were administered within an eight-day period by the same examiner each time. For the 12 Mexican-American subjects, the coefficients for the receptive and expressive subtests were .69 and .91, respectively. For the 12 Puerto Rican-American subjects, the coefficients for the receptive and expressive subtests were .62 and .72, respectively. Internal consistency coefficients for the various age levels of the Mexican-American group ranged from .26 to .60 for the receptive subtest and from .82 to .89 for the expressive subtest. Internal consistency for the various age levels of the Puerto Rican-American group ranged from .27 to .63 for the receptive subtest and from .74 to .88 for the expressive subtest.

Validity: Scores from the Developmental Assessment of Spanish Grammar, also by Toronto, and the STSG were obtained for 105 children from the standardization population of the STSG. Correlation coefficients for these two sets of scores for the Mexican-American group were .55 and .64 respectively for the receptive and expressive subtests. For the Puerto Rican group, correlation coefficients were .63 and .64 for respectively for the receptive and expressive subtests. All were significant at the .01 level of confidence. Validity was also inferred from the progressive increase in scores as age level increased, indicating that syntactic development was in fact being measured, according to the author.

Summary Evaluation

Technical: The normative group appears to be appropriate for comparison with individuals of similar ethnic backgrounds in the same geographic region. Reliability is rather low for the receptive subtest, and this, along with the small sample, suggests that the scores for this subtest may be only marginally useful. Validity of the test from correlation with the Developmental Assessment of Spanish grammar is of little value without technical information on that test. The fact that scores increase with age does not necessarily indicate that the test measures syntactic development, in the opinion of reviewers.

Reliability of the expressive subtest is adequate for a screening instrument, although a larger sampling would provide more meaningful data. The restricted geographic area from which the sample was drawn limits its usefulness for other populations without appropriate revisions of the norms to accomodate regional differences. The author allows for regional variations in language, which is noteworthy in a test of this type. Overall, reviewers concluded that the receptive subtest is of questionable value, even as a screening instrument. The expressive subtest appears useful for screening purposes.

Practical: As a screening device, the STSG can be used as a quick estimate of a child's syntactic development. The normative information can be utilized to isolate those children who are sufficiently deviant in syntactic development.

The expressive portion of the STSG could provide valuable information which would aid in the development of a remedial program. Due to the design of the test, children with short term auditory memory or auditory discrimination problems may experience particular difficulty with the instrument. For this reason, scores provided should be used with extreme caution.

TEST FOR AUDITORY COMPREHENSION OF LANGUAGE (1973, 5th.ed.)

Spanish/English

Author: Elizabeth Carrow-Woolfolk

Publisher: Learning Concepts
2501 N. Lamar
Austin, Texas 78705

Purpose: The test is intended to measure auditory comprehension of language in order to assign the child to a developmental level of comprehension, and to serve as a diagnostic device for determining areas of linguistic difficulty.

Age range: 3 yrs. 0 mos. to 6 yrs. 11 mos.

Target Population: Mexican-American, Anglo, Black.

Time to Administer: Approximate 20 minutes per child.

Test Description: The Test for Auditory Comprehension of Language (TACL) is a norm-referenced instrument containing 101 parallel items in Spanish and English which samples specific structures within the general language categories of form classes and function words, morphological constructions, grammar, and syntax. All items must be administered. The test is not timed.

Administrative Considerations: The test is administered individually in Spanish and/or in English, depending on the language background of the child. The examiner should be proficient in both languages, and the author states that minimum examiner qualifications include "a bachelor's degree in education psychology, or sociology" and "significant testing experience."

Administration Procedures: Instructions are given orally in the appropriate language. The child responds by pointing to one of three pictures when the stimulus is read aloud by the examiner. The picture number indicated by the child is then recorded by the examiner in the appropriate space on a separate scoring sheet.

Score Interpretation: Norms are available only for the English language version. The test yields a raw score which can be compared to age-equivalency norms for a developmental age. Percentile ranks are also provided for age-group comparisons at six-month intervals. In addition, language categories measured by specific test items are included in the manual. The author suggests that analysis of a child's specific areas of difficulty may be ascertained by studying performance on item groups. An analysis section is provided on the test form for this purpose.

Norms for the specific subcategories are not provided, but the response form does indicate the age at which 75 and 90 percent of children pass each item.

Technical Information

Norms: English-language norms were obtained from a sample of 200 middle-class Black, Anglo, and Mexican-American children. No further sample characteristics are given in the manual. Results from the three ethnic groups were collapsed because studies comparing performance among the three groups yielded no significant differences, according to the author.

Reliability: Test-retest reliability was computed on students in Abilene and San Diego, Texas and St. Martin Parish, Louisiana. Twenty-eight males and 23 females, half of whom (N=25) were Mexican-American, were administered the English version. The mean age of this sample was 82.43 months. The Spanish version was administered to 32 Mexican-American children, 12 males, and 20 females, with a mean age of 85.71 months. All children were retested "within a two week interval." Overall test-retest reliability coefficients were .94 for the English version and .93 for the Spanish version.

A rank order correlation between the error scores of five subjects with good articulation and five subjects with poor articulation after a four week test-retest interval was .92.

Kuder-Richardson reliability in a study of middle and lower class Black and Anglo children yielded a coefficient of .77 for consistency of performance on TACL items.

A rank order correlation of .79 (p=.02) was obtained in a study of predictive ability of the TACL for dysphasic children tested at one-year intervals.

Validity: According to Silverman, et. al., (1976), content validity was established with an item analysis by the Southwest Educational Development Laboratory in Austin, Texas. They also note that consensus of experts was also used, namely items were selected and retained if there was agreement among the experts that they evaluated knowledge of specific grammatical structures.

The author contends that concurrent validity is demonstrated because the TACL "successfully distinguishes between individuals who have known disorders of language comprehension and those who do not."

Construct validity is assumed from the fact that language comprehension is developmental, and studies cited by the author show an increase in age parallel by increase in score. It is further demonstrated by improvement in score with "improvement in the status of language disordered children" in a study on dysphasic children.

Summary Evaluation

Technical: From information provided by the manual, normative population characteristics are insufficient to determine their applicability to California subgroups of normal and language disabled children. Further, while the manual implies that normative information provided only for the English version may be generalized to scores from Spanish language assessment, the reviewers feel that this is an unwarranted assumption, and that interpretation must be cautious until research on appropriate language groups validate this assumption. Test-retest reliabilities appear adequate, but tests of internal consistency again relate only to an English-speaking population, so that generalization cannot be made to Spanish language groups. Estimates of validity appear adequate for the purpose of assigning a developmental age in language comprehension, the first of the stated purposes of the test. However, there is insufficient evidence to warrant use of the TACL for the second stated purpose as a diagnostic device for determining specific areas of linguistic difficulty.

Practical: Due to the fact that no normative information is provided for the Spanish speaking population, the use of the TACL as a diagnostic or screening device is limited. In addition, many of the vocabulary items are inappropriate and unfamiliar to this region (Northern California). The English portion of the TACL could possibly be used to determine how the child performs in comparison to the normed population, however, computation of a "score" would not be valid.

Reference

SILVERMAN, R.S., NOA, J.K., RUSSELL, R.H. Oral Language Test for Bilingual Students: An Evaluation of Language Dominance and Proficiency Instruments. Portland, Oregon: Northwest Regional Educational Laboratory, 1976.

TORONTO TESTS OF RECEPTIVE VOCABULARY (1977)

English/Spanish

Author: Allen S. Toronto

Publishers: National Educational Laboratory Publishers Inc.
Post Office Box 1003
Austin, Texas 78767

Purpose: To identify English and Spanish-speaking children whose performance in identifying orally presented vocabulary words is significantly below that of their peers. The test can also be used to determine the English and Spanish receptive vocabulary of bilingual children.

Age Range: 4 years-0mos. to 10 years-11 mos.

Target Population: Anglo-American, English-speaking Mexican-American, and Spanish-speaking Mexican-American.

Time to Administer: Approximately 10 minutes for each language version per child.

Test Description: The Toronto Test of Receptive Vocabulary (TTRV) is a norm-referenced instrument containing two separate sets of pictured items, one set for the English version and one for the Spanish version. The language versions are not translations of one another. Each set contains 40 items of increasing difficulty. Preceding each test there are three practice items. All items must be administered. The test is not timed.

Administrative Considerations: The test is administered individually in English and/or in Spanish, depending on the language background of the child. The examiners should be proficient in the appropriate language(s), however, no minimum examiner qualifications are stated in the test manual.

Administration Procedures: Instructions are given orally, verbatim, and in the appropriate language. The child responds by pointing to one of three pictures when the stimulus is read aloud by the examiner. The child's response is scored as correct or incorrect and recorded on a separate score sheet.

Score Interpretation: Percentile norms are provided for each of the three target groups. The raw score (total correct responses) is compared to the appropriate age and group norms. If a child obtains a score at or slightly below the 10th percentile, the authors suggest the child be evaluated further to determine whether he or she requires special education services. The norms include a "deviant" score falling two standard deviations below the mean. According to the authors, children obtaining such a score are in need of special help.

Bilingual comprehension can be measured by administering both English and Spanish versions of the TTRV and by comparing scores of the appropriate norms.

Technical Information

Norms: The TTRV was standardized on three district linguistic and ethnic groups from four to 10 years of age: Anglo-American, English-speaking Mexican-American, and Spanish-speaking Mexican-American. There were 1,276 children total, with 380-464 children per linguistic group. Sampling per age group ranged from 47 to 68 children across linguistic groups. Subjects were randomly selected from school districts, church nurseries, and day care centers in San Antonio, San Marcos, and Temple, Texas. Children were tested in Spanish if they spoke Spanish at home at least 75% of the time. No children were tested in English and Spanish and included in the standardization sample twice. Children with diagnosed learning disabilities were not included in the sample.

Reliability: A total of 152 children (55 Anglo-American, 52 English-speaking Mexican American, and 45 Spanish-speaking Mexican-American) were retested with the same test from two weeks to a month after the initial test administration. Test-retest reliability coefficients ranged from .82 to .92. Split-half reliability was also estimated , with results ranging from .80 to .81. In addition, homogeneity of the items was estimated with results ranging from .86 to .88.

Validity: Since abilities in vocabulary recognition are expected to increase with age, the author contends that validity is indicated by the fact that test scores increased significantly as age progressed. The reliability of the TTRV is also used by the author as an indicator of validity. Finally the standardization group of the TTRV was the same as for the Toronto Bicultural Test of Non-Verbal Reasoning (Academic Tests, Inc., Austin, 1977). The correlation between these two tests yielded a Pearson's coefficient of .66. This positive correlation between the TTRV as a test of receptive vocabulary and the Bicultural Test of Non-Verbal reasoning is taken by the author as further indication of the validity of the TTRV.

Summary Evaluation

Technical: The criteria for determining the linguistic background of children designated "English-speaking Mexican-American" are not stated. It is inferred by the reviewer that these were children who did not meet the criterion for Spanish-speaking Mexican Americans of speaking Spanish in the home 75% of the time. At any rate, such norms appear inadequate for comparison purposes without more specific information as to the background of the children included. Generalization of the results of the three normative groups to groups in areas other than that of the sampling population should not be made without re-establishing local norms.

Reliability estimates appear appropriate. Procedures and rationale for establishing validity of the TTRV are, however, inadequate. Reliability, while a necessary prerequisite for validity, does not in and of itself imply validity. Further, the limitations of the standardization procedures for the TTRV apply to the Bicultural Test of Non-Verbal Reasoning as well, so that this test cannot automatically be assumed to a valid measure of non- verbal reasoning as it is purported to be. Further research is necessary to establish the validity of the TTRV.

Practical: The TTRV contains a more than adequate item selection which also appears to be representative of vocabulary items appropriate to California. The test provides a relatively adequate determination of receptive vocabulary skills, and can be a useful tool in diagnosing receptive language deficits in both English and Spanish.

One practical criticism of the TTRV is that the drawings are less than adequate and are often confusing (some are inaccurate). The poor quality of the drawings may even be responsible for incorrect responses.

CHAPTER 6

SURVEY OF CURRENT PRACTICES

PURPOSE AND METHOD

This survey was designed to gather information from the case folders of a sample of Hispanic LES/NES students who were identified as eligible for SLH/LS services. The information collected included records of assessment practices, services recommended, and characteristics of target students. All information collected had been noted by the students' therapists in their case folders.

Seventy students were randomly selected from five California counties that have large enrollments of Hispanic students: Fresno, Los Angeles, San Diego, San Francisco, and Santa Clara.[1] With the exception of San Diego, the Directors of Special Education in these counties provided the initial liaison with the county and district special education personnel and assisted project staff in identifying districts with substantial enrollments of Hispanic children.

A stratified equal sampling design was used to select the students, since proportional sampling would have resulted in some counties being allotted very small numbers of students. Seventeen students per county were targeted for the survey. Due to logistical problems, however, the final sample varied somewhat by county. Table 6-1 displays the sample.

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[1] Sacramento County was originally included in the design. We discovered however, that the largest school district in the county had no Hispanic LES/NES students enrolled in SLH/LS classes. In another school district in the county, only one such student was being served in a language and speech program.

TABLE 6-1: DISTRIBUTION OF STUDENTS BY COUNTY IN THE SURVEY OF CURRENT PRACTICES

County	Number of Students
Fresno	14
Los Angeles	15
San Diego	10
San Francisco	12
Santa Clara	19
TOTAL	70

Fifty-three percent of the sample were male, 43% female (4% did not indicate sex). They ranged in age from 3 1/2 to 18 years, and spanned all grades from pre-school to the twelth grade. More than half the sample (54%) received either Title I or free lunch services or both. One child was classified as migrant.

A "Case Folder Questionnaire" (See Appendix A) was designed, to be completed either by project staff or by the speech and language personnel to whom the student had been assigned. Parent permissions were obtained, and case folders were than inspected. The Questionnaire was pilot tested by one bilingual and one monolingual speech and language specialist, who used the questionnaire to summarize information from five case folders. We found almost perfect agreement between them in filling out the Questionnaire items.

Below we summarize the results of the survey. The detailed findings follow the summary.

SUMMARY OF FINDINGS

Assessment Practices

1. The most most widely used tests for identifying LES/ NES students were the Bilingual Syntax Measure and the Language Assessment Scale.

2. The tests most frequently used for determining **eligibility for SLH/LS services** were the English versions of the Boehm Test of Basic Concepts and the Peabody Picture Vocabulary Test. In Spanish, the most frequently used tests were the Boehm Test of Basic Concepts, the Carrow Test for Auditory Comprehension of Language and the Del Rio Language Screening Test.

3. In the **diagnosis** of speech problems, most case folders indicated the use of the same instrument that was used to determine eligibility for services.

Student Characteristics

4. When **reading and math** scores were reported, math scores (while in the same general range) were usually higher.

5. **Social adaption/behavior** scores, when reported, were below what is normally expected.

6. **Psychomotor Skills** showed slower development in early stages but a tendency to catch up and even out in the latter stages of development.

7. According to SLH/LS personnel, **characteristics indicative of communicative disorders** include:

a. Significant delays in receptive and expressive language

b. Delayed association and memory

c. Articulation errors

d. Problems with code switching

Personnel

8. All personnel responsible for providing the students in the sample with instructional services were certified teachers, specialists or clinicians, including SLH, SLD/H, and aphasic teachers; language and speech, and communicative disorders specialists; and speech clinicians.

9. **Language Proficiency.** Of the personnel responsible for services, a large majority -- 63% -- indicated that they were proficient in English only; 36% indicated proficiency in both English and Spanish or Spanish only. One person indicated proficiency in Spanish only and one did not respond.

Program Characteristics

10. **Program duration** for the large majority of students was two years or less, with a strong suggestion that annual reviews take place.

11. **Hours per Week.** The largest number of students (41%) were served one- half to one hour per week; 24% were served 1-1/2 to 3 hours per week and the rest 15-30 hours per week.

12. The treatment goals most frequently stated were:

a. Improved expressive and receptive language, including articulation skills, syntax and vocabulary.

b. Improved processing skills, including the ability to follow directions.

c. Improved reading skills.

Following are the detailed results of the data analyses.

SPECIFIC FINDINGS

1. Tests Identifying LES/NES Students.

A wide variety of tests were administered to identify LES/NES students in the six counties. (Some of the students in the sample were identified prior to 1978, when the State Education Department recommended the use of four particular tests.) Teacher judgment was also listed in the identification process, but it was used only in conjunction with one of the test.

Number of students given the tests indicated for LES/NES identification:

English	**Spanish**	
4	4	Basic Inventory of Natural Languages (BINL)
23	25	Bilingual Syntax Measure (BSM)
4	4	Del Rio Language Survey Screening Test
2	2	Dos Amigos
1	1	Idea Oral Proficiency Test
1	3	Language Assessment Battery (LAB)
27	18	Language Assessment Scale (LAS)
8	8	No Response

2. Tests or Procedures for Determining Eligibility for SLH/LS Services

The following tests or procedures were used to determine student eligibility for SLH/LS services:

English	Spanish	
2	2	Arizona Articulation Test
9	5	Assessment of Children's Language Comprehension
6	10	Bicultural Test of Non-Verbal Reasoning (Toronto)
33	19	Boehm Test of Basic Concepts
15	15	Carrow Auditory Comprehension of Language
6	3	Carrow Elicited Language Test
7	14	Del Rio Language Screening Test
11	0	Detroit Vocabulary Tests of Language Aptitude
1	0	Durrel Analysis of Listening Comprehension
6	0	Fisher Logeman Articulation Test
17	4	Goldman Fristoe Test of Articulation
18	7	Illinois Test of Psycholinguistic Abilities
4	4	LA MEDA - Spanish Articulation Test
15	7	Language Abilities Scale
6	2	Language Sample (procedure)
2	5	Los Amigos
1	2	Los Ninos
1	1	Motor Free Visual Performance Test
17	2	Northwestern Syntax Screening Test
34	10	Peabody Picture Vocabulary Test
1	0	Sequenced Inventory of Communicative Disorders
1	1	Test for Auditory Comprehension of Language
3	8	Toronto Test of Receptive Vocabulary
2	0	Wiig Test of Linguistic Concepts
2	0	Southwestern Spanish Articulation
2	2	Test of Language Development (Wepman)

A total of 25 different tests were administered to determine eligibility for SLH/LS services (as opposed to 8 tests to determine eligibility for LES/NES services.) Two or more tests were given to each student included in the sample, except one youngster who qualified for SLH/LS services on the basis of one test administered in both Spanish and English. The two tests most frequently administered for eligibility were the Peabody Picture Vocabulary Test and the Boehm Test of Basic Concepts.

A total of 220 tests (65%) were given in English and 118 (35%) in Spanish. The proportion of tests given in each language matches almost perfectly the proportion of personnel who were proficient in each language. (63% were proficient in English only; 36% were proficient in both English and Spanish or Spanish only.)

The wide variety of the tests used indicates the range of preferences of speech personnel, as many of the tests addressed the same dysfunction.

3. Tests given for diagnosing speech problems.

In reply to this querry, five respondents listed the Wise, the Wrat, the Leiter Intelligence Performance Scale and other similar tests indicating specialized problems. The remainder of the case folders indicated the use of the same tests for diagnosing problem areas as for determining eligibility for services.

4. The students' current levels of educational performance.

Achievement. While the grade level range was from preschool to twelfth grade, reading and mathematics scores ranged from .7 to 5.5. The mathematics scores, while in the same range as the reading scores, were generally higher.

Social Adaptation/Behavior. This variable ranged from no interaction with peers and adults to normal interaction. In most cases the social adaptation/behavior was below what is normally expected.

Prevocational/Vocational Skills. There was very little response for the elementary school child (indicating this is not an area of concern at this level). The high school students ranged from limited ability in woodshop to working well with peers, teachers and adults. One student was reported to have a CETA position and doing well.

Psychomotor Skills. The range here was from significant delay for the preschool children to appropriate for the high school students. This could indicate that students develop more slowly in the early stages but come to approaching their peers in the later stages of development.

Self-Help Skills. The sample indicates that the self-help skills of the younger children are delayed, but at the high school level, the self-help skills are appropriate and/or adequate.

5. Characteristics that indicate a communicative disorder:

- Significant delays in both receptive and expressive vocabulary.
- Significant delays in morphology and syntax in both languages (English-Spanish)
- Significant delay in expressive grammar
- Problems with code switching
- Weak auditory processing skills
- Significant delay in retrieval skills
- Articulation errors
- Difficulty in following directions
- Significant delay in responding
- Delayed association and memory
- When given the WISC these students generally score higher on the performance scale than on the verbal scale

The first ten characteristics are results from observations of speech therapists and speech clinicians. The last is an observation of a psychometrist.

6. Recommended duration of the SLH/LS Program

No. of years recommended	No. of respondents
Less than 1	1
1	11
2	18
2-3	5
3	6
More than 3	3
Based on Annual Review	18
No Recommendation	8

The range suggests that the professionals in the program do not have the "cradle to grave" theory and are attempting to return students to regular programs as soon as possible.

7. Title and language(s) of persons responsible for providing instruction:

20 SLH teachers fluent in English

18 SLD/A teachers fluent in English and Spanish

5 SLD/A teachers fluent in English

2 SLD/A teachers fluent in English and Spanish

1 Specialist in communicative disorders fluent in English

4 Speech clinicians fluent in English

10 Aphasia teachers fluent in English

4 Language and speech specialists fluent in English

1 Language and speech specialist fluent in Spanish

3 Language and speech specialists fluent in English and and Spanish

1 Resource specialist fluent in English and Spanish

1 No response

8. Amount of time per week services are provided:

No. of Students	Hours Per Week	Self Contained Class
29	1/2 - 1	no
12	1-1/2 - 2	no
5	2-1/2 - 3	yes
5	15	no
1	20	no
6	25	yes
9	30	yes

No response: 3

9. Goals of treatment:

The goals of treatment indicate that each program is specifically directed to the needs of each student. While there is a similarity of general problems, the goals of one treatment procedure are not exactly the same as those of any other treatment procedure. Stated goals included:

- improved articulation
- Improved expressive and receptive vocabulary
- Improved ability to follow directions
- Improved reading skills
- Improved syntax
- Improved ability to use appropriate language structures
- Improved ability to use consonants and vowels in conversational speech
- Improved use of grammatical structures
- Improved processing skills

CHAPTER 7

SURVEY OF PROFESSIONALS

PURPOSE AND METHOD

Language and speech professionals in California were surveyed, and their opinions and recommendations regarding SLH/LS special education services for Hispanic LES/NES children were compiled.

A questionnaire, "Survey of Professionals" (Appendix B), was developed and distributed at the annual meeting of the California Speech and Hearing Association held in Los Angeles in April of 1980. Additional questionnaires were mailed to districts with large populations of Hispanic LES/NES students that were not represented among the respondents of the initial survey.

Approximately 85% of the data were obtained from the California Speech and Hearing Association meeting. The rest were obtained through the mail. A total of sixty questionnaires were returned. These formed the data base for this study.

Eighty percent of the respondents were Speech, Language and Hearing Specialists; 15% were Severe Language Handicap Specialists/Aphasic; the remaining 5% were administrators.

The majority of the professionals (73%) served grades K-6. Twenty percent served high school students and nine percent served preschoolers. Almost half the sample (45%) were school level personnel; 35% worked at the district level, and 20% at the county level.

Below is a summary of the survey findings. A more detailed presentation of the findings follow the summary.

SUMMARY OF FINDINGS

Opinions about Program Effectiveness

1. More than half the respondents (52%-57%) thought that **the programs in which they were working were "less than**

adequate" with respect to the four areas addressed: assessment tools and procedures, assessment personnel, remedial programs, and remedial personnel. Only 15%-30% of the respondents thought the programs were "adequate"; 3%-5% thought they were "more than adequate."

Opinions about Placement

2. Nearly half the respondents (43%) thought there may be Hispanic LES/NES children are being inappropriately placed into SLH/LS programs.

3. A very large majority (72%) thought that **there may be Hispanic LES/NES children needing SLH/LS assistance who are not receiving services.** Those who commented further thought that such children are not placed into SLH/LS programs because they are LES/NES. Since LES/NES students are entitled to bilingual programs and there is a higher probability of inappropriate placement into special classes, there is some reluctance to place them into SLH/LS classes.

Suggestions for Program Improvement at the Local Level

The most frequent suggestions were:

4. Increase the number of bilingual assessment and remedial program personnel.

5. Make available more appropriately normed assessment instruments and normative data.

6. Develop a bilingual SLH/aphasia program.

7. Provide remedial programs designed to provide training in the child's native language.

Suggestions for Program Improvement at the State Level

The most frequent suggestions were:

8. Develop appropriate assessment tools.

9. Require that bilingual speech/language specialists review case folders of LES/NES students in the event that assessment is conducted by non-Spanish-speaking professionals.

Other less frequent suggestions are enumerated in the following section which presents the detailed findings of the survey.

SPECIFIC FINDINGS

Although a total of 60 SLH/Ls professionals returned the questionnaires, not everyone answered every question. Thus, with the exception of personal information, the total number of respondents for each item varies. Where appropriate, the question asked will be summarized, otherwise, the actual wording of the question is given. Percent totals may not add up to 100% because of rounding.

1. Jurisdiction of work:	**Number**	**Percent**
• County	12	20
• District	21	35
• School Site	27	45

2. Grades served: (One person usually served more than one grade)

• Preschool	9	7
• K-3	46	38
• 4-6	42	34
• 7-9	16	13
• 10-12	9	7

3. Job Title

• Speech, Language and Hearing Specialist	48	80
• Severe Language Handicap Specialist/ Aphasic	9	15
• Administrators	3	5

4. Respondents' opinions regarding the effectiveness of the program in which they work.

a. Effectiveness of Assessment Personnel:

• More than adequate	3	5
• Adequate	16	30
• Less than adequate	31	53
• No response	10	52

b. Effectiveness of Assessment Tools and Procedures:

• More than adequate	3	5
• Adequate	18	30
• Less than adequate	32	53
• No response	10	16

c. Effectiveness of Remedial Personnel:	Number	Percent
• More than adequate	2	3
• Adequate	12	20
• Less than adequate	32	53
• No response	14	23

d. Effectiveness of Remedial Programs:

• More than adequate	2	3
• Adequate	9	15
• Less than adequate	33	55
• No response	16	27

5. a. Have you ever felt that Hispanic LES/NES children are being inappropriately placed into SLH/LS programs?

• Yes	26	43
• No	19	32
• Other	3	5
• No response	12	20

b. The 26 people who answered Yes to the the previous question also answered the following question: What proportion of Hispanic LES/NES children do you think are inappropriately placed into SLH/LS programs?

• Most	2	8
• Some	14	54
• A Few	10	38

6. a. Have you ever felt that there may be Hispanic LES/NES children needing SLH/LS assistance who are not receiving it?

• Yes	43	72
• No	7	12
• No response	10	16

	Number	Percent
b. The 43 people who answered Yes to the previous also answered the following question: What proportion of Hispanic LES/NES children needing SLH/LS assistance do you estimate do not receive it?		
• All	1	2
• Most	6	10
• Some	20	33
• A few	16	27
• No response	17	28

NOTE: As is usually the case with questionnaire responses, a substantial number of respondents did not give answers to the open-ended questions which required longer answers. In order to reflect the popularity of each suggestion among those who did respond to open-ended questions, we provide two percentage statistics: the first, like all the other items, indicates proportions of the total sample; the second indicates proportions of the subgroup of respondents who answered the question. These two percentage statistics are given for all the remaining questionnaire items.

7. Suggestions for local (district and county level) program improvement, listed by area and in order of decreasing frequency.

a. Improvement in Assessment Personnel:	Number of Respondents	% of Total Sample	% of Item Respondents
• Increase number of bilingual professionals	15	25	38
• Reduce caseload of personnel having to do bilingual assessment for districts.	8	13	21
• Increase Bilingual personnel (paraprofessionals) to assist in assessments	6	10	15

	Number of Re- spondents	% of Total Sample	% of Item Re- spondents
• Provide a means of sharing assessment and programming ideas with other professionals	5	8	13
• Provide inservice for classroom teachers and speech and language specialists on identifying characteristics of the LES/NES, SLH child	5	8	13
• No response	21	35	
b. Improvement in Assessment Tools and Procedures:			
• Provide more appropriately named assessment instruments and normative data	20	33	53
• Review of any assessment by a bilingual professional when a LES/NES child is involved	8	13	31
• Provide inservice on strengths and weaknesses as well as availability of current assessment tools	6	10	16
• Develop a system for language sampling, complete with norms	4	7	11
• No response	22	37	
c. Improvement in Placement:			
• Develop a bilingual Special Education (SLH/aphasia) Program	15	25	52
• Have bilingual professionals present at all A/D meetings when a LES/NES child is involved	6	10	21
• Educate districts as to the needs of LES/NES children to avoid inappropriate placements	3	5	10
• No response	31	52	

	Number of Respondents	% of Total Sample	% of Item Respondents
d. Improvement in Remedial Programs:			
• Develop remedial programs designed to provide training in the child's native language	10	16	43
• Provide English as a Second language assustabce fir those LES/NES children in SLH/LS programs	7	12	30
• Develop materials designed for use with the LES/NES child	4	7	17
• Expand present programs to meet the needs of the growing population of identified children	2	3	7
• No response	37	62	
e. Improvement in Remedial Personnel:			
• More bilingual professionals	15	25	60
• More bilingual para-professionals	10	17	40
• No response	35	58	
8. Suggestions for Improvement of State-Level Programs:			
a. Improvement in Assessment Procedures:			
• Develop appropriate assessment tools	10	16	48
• Assessment should be conducted by certified bilingual professionals only	6	10	29
• Develop assessment tools designed and normed for older students (over age 11)	5	8	11

	Number of Respondents	% of Total Sample	% of Item Respondents
• Allow funding to each district for a bilingual language specialist whose primary job is to assess and diagnose LES/NES children	4	7	19
• Develop descriptive type of assessment tools (developmental inventory of skills)	3	5	14
• Develop assessment tools designed for use by non-speaking speaking professionals	3	5	14
• No response	39	65	
b. Improvement in Placement Procedures:			
• Require a bilingual speech/language specialist to review the case folder if assessment of a LES/NES child is conducted by a non-Spanish speaking professional	9	15	45
• Provide a bilingual interpreter (trained) in Special Education) at A/D meetings	6	10	30
• Conduct more observations of prospective SLH placements	3	5	15
• Define standards to meet the needs (educationally) of the LES/NES child identified as being SLH	2	3	10
• No response	40	67	

CHAPTER 8

RECOMMENDATIONS

The statewide picture of SLH/LS special education services for children of limited English proficiency reveals a field in its infancy. The relevant available research (on English second language and Spanish first language acquisition and use) is new and has not generally been applied to assessment procedures or instructional practices. Basic research on communicative disorders in LES/NES students is virtually non-existent. Current assessment and instructional practices are stop-gap efforts rather than comprehensive, empirically based programs. Qualified knowledgeable personnel are few and often stretched too thinly over too many students.

There are, of course, good programs in place in a few school districts, and some research and development efforts are underway. These are, however, isolated rather than widespread, organized efforts.

Perhaps the massive statewide efforts to develop and implement regular bilingual and English Second Language programs for normal LES/NES students has taken precedence. After all, core programs must be developed before special programs can be planned.

Today, however, regular bilingual programs are well underway in most districts that need them. Despite continuing political controversy, California has relatively sound legislative mandates regarding bilingual education and local programs are slowly becoming established. It is possible now to focus on the special needs of a special subpopulation of LES/NES students, those who are in need of SLH/LS special education services.

The recommendations presented below are addressed to this project's sponsor -- the California State Department of Education -- and the state's Special Education Commission, which works closely with the State Department of Education. Our recommendations are based on the state-of-the-art reviews and the survey of practices and professionals presented in the preceding chapters.

Recommendations are divided into short term, "quick pay-off" (in one year) activities, and long term, delayed pay-off activities. Some recommendations focus on research, some on practice. We assume that the development of practices and procedures will be based on research findings and that research questions will be guided by practical concerns. Each recommendation is followed by its projected benefits.

SHORT TERM RECOMMENDATIONS (Pay-off after one year)

1. Develop an **"identification-placement-exit framework" for student assessment.** The framework should include a flow of procedures, criteria, and student classifications designed to identify and place communicatively handicapped LES/NES students in appropriate special programs, and exit them in a timely manner. Adequate assessment includes testing in English and the home language. It includes both screening and in-depth diagnostic procedures spanning the components of language. The framework should be coordinated with assessment procedures already in place to identify, place, and exit students in bilingual and ESL programs.

The framework would help solve the two widespread problems of misplacing normal LES/NES students into special classes or overlooking communicatively handicapped LES/NES students.

2. One the framework and flow chart have been developed, one must **key available tests to the steps in the procedural flow.** The test reviews in chapter 5 would facilitate this activity. This information would allow immediate implementation of the framework. It would maximize the effective use of tests already available, and would indicated which types of tests must still be developed.

3. Conduct (or arrange with other institutions to conduct) a series of **training institutes** on testing and teaching communicatively handicapped LES/NES students. The training sessions should be designed to address at least the following groups of personnel:

- English monolingual certified SLH/LS personnel who are currently providing services to LES/NES students
- Spanish-speaking certified SLH/LS personnel (bilingual or monolingual in Spanish)
- Bilingual teachers currently teaching in bilingual programs
- University professors who train SLH/LS professionals
- School, district, and county personnel who administer SLH/LS programs

The training institutes would bring the general level of knowledge in the field at least up to current levels regarding research and practice. They would initiate lines of communication among researchers and practitioners in the field.

4. Develop a set of **personnel functions** that can be carried out by the following types of personnel:

- Spanish-speaking bilingual certified SLH/LS personnel
- Spanish-speaking monolingual certified SLH/LS personnel
- English monolingual certified SLH/LS personnel
- Spanish-speaking paraprofessionals
- Bilingual teachers in regular bilingual programs

For example, English monolingual personnel might be responsible for English assessment and treatment, while Spanish-speaking bilingual personnel would be responsible for coordinating the child's entire program, as well as performing assessment and instructional activities in Spanish.

Such division of labor would make maximum use of available bilingual personnel, while also utilizing the services of English-speaking SLH/LS professionals.

5. Develop a **"resource bank"** list of existing personnel knowledgeable about assessment and instruction of communicatively handicapped LES/NES students.

School districts who are initiating programs for communicatively handicapped LES/NES children would have a network of people to call upon for advice, and would not duplicate efforts that have already been made.

6. Conduct a **nationwide survey of SLH/LS program materials** to determine what is presently available and what needs to be developed.

This survey would prevent duplication of effort and alleviate the gap in materials available to California schools.

7. Develop **interim strategies** which would help districts assess and treat LES/NES children until sufficient bilingual personnel can be trained and employed.

These strategies would enable districts to provide some services while careful planning and development of programs is still taking place.

8. Support research to perform item analyses of currently available tests in light of research findings in English second language development, Spanish first language acquisition, and Spanish dialectology.

This would encourage and assist publishers in correcting current flaws in their instruments. It would help therapists interpret student performance on tests.

9. Support work by school districts, universities and publishers to revise and/or renorm existing instruments so that items and norms are appropriate for use with Hispanic LES/NES students in California.

This would fill the great need for assessment instruments that are valid for Hispanic LES/NES students.

LONG TERM RECOMMENDATIONS

1. Provide support to school districts, universities, publishers and other organizations who are willing and able to make a commitment to developing instruments that are needed to implement adequate identification-placement-exit and diagnostic systems for LES/NES students.

This would hasten the development of adequate assessment instruments.

2. Support research on the environmental, sociological, attitudinal, emotional, cognitive, and neurological correlates of very limited proficiency scores in both English and Spanish of LES/NES students.

This would provide a first step in designing effective treatment programs for the children.

3. Support basic research on code switching by LES/NES students. Code switching is currently viewed by many practitioners as a symptom of a disorder. On the contrary, in many cases it is simply part of the linguistic repertoire of bilingual individuals.

Research in this area would sharpen current criteria for identifying communicative disorders of LES/NES students. It would lessen the likelihood of misplacing normal LES/NES students in SLH/LS classes.

4. Support basic research on the effects of different kinds of amounts of exposure of LES/NES students to English. For example, students who have English-speaking friends may learn English at a faster rate than those who do not.

This would provide information necessary for the development of unbiased norms for English second language development.

5. **Support basic research on the loss or interrupted development of Spanish in the United States.** Hispanic students slow down, stop acquiring or lose the Spanish they have learned given certain social circumstances. Such behavior is "normal", although easily mistaken for delayed language development.

This would provide information necessary for the development of accurate norms for Spanish first language development in the United States.

6. **Support basic research to identify the critical characteristics of language errors that distinguish abnormal or delayed English second language or Spanish first language development from normal development** in each language.

This would provide information that could be applied to the development of screening instruments and instructional techniques.

7. Develop **program models** for treating communicatively handicapped LES/NES students.

Given the limited number of knowledgeable people in this field, the availability of program models would provide invaluable assistance to districts who do not have access to needed expertise.

8. Encourage universities to **develop courses** that focus on SLH/LS services for LES/NES students, and **recruit Spanish- speaking students** for their programs.

This would alleviate the acute shortage of Spanish-speaking SLH/LS professionals in California school districts.

APPENDICES

CASE FOLDER QUESTIONNAIRE

To Be Completed by Bloomsbury West Staff

COUNTY: ____________________

DISTRICT: ____________________

SCHOOL: ____________________

GRADE: ____________________

STUDENT NAME: ____________________

SEX: ___M ___F BIRTHDATE: ____________

OTHER: (✓)
Title I ( )
Free Lunch ( )
Migrant ( )

1. *Which of the following tests or procedures was/were given to this student to identify him/her as LES or NES? In what language(s)?*

ENGLISH (✓)	SPANISH (✓)	
____	____	(1) Basic Inventory of Natural Languages (BINL)
____	____	(2) Bilingual Syntax Measure (BSM)
____	____	(3) Language Assessment Battery (LAB)
____	____	(4) Language Assessment Scale (LAB)
____	____	(5) Teacher judgment
____	____	(6) Other (Please specify): ____________________

2. *Which of the following test(s) or procedure(s) was/were given to this student to determine his/her eligibility for SLH/LS services? In what language(s)?*

ENGLISH (✓)	SPANISH (✓)	
____	____	(1) Arizona Articulation Test
____	____	(2) Assessment of Children's Language Comprehension (ACLC)
____	____	(3) Bicultural Test of Non-Verbal Reasoning (Toronto)
____	____	(4) Boehm Test of Basic Concepts
____	____	(5) Carrow Auditory Comprehension of Language
____	____	(6) Carrow Elicited Language Test
____	____	(7) Detroit Vocabulary Tests of Language Aptitude
____	____	(8) Fisher Logeman Articulation Test
____	____	(9) Goldman Fristoe Test of Articulation
____	____	(10) Henja Articulation Test
____	____	(11) Illinois Test of Psycholinguistic Abilities (ITPA)
____	____	(12) La MEDA - Spanish Articulation Test
____	____	(13) Language Abilities Scale
____	____	(14) Language Sample (procedure)
____	____	(15) Los Amigos
____	____	(16) Meecham-Verbal Language Development Tests
____	____	(17) Northwestern Syntax Screening Test (NSST)
____	____	(18) Peabody Picture Vocabulary Test
____	____	(19) Systems FORE
____	____	(20) Templin Darley Test of Articulation
____	____	(21) Toronto Test of Receptive Vocabulary
____	____	(22) Other (Please specify): ____________________

3. *What other tests were given to this student that relate to diagnosing his/her language or speech problem?*

English (✓)	Spanish (✓)	
______	______	*(1)* ______
______	______	*(2)* ______
______	______	*(3)* ______

4. *Describe the student's current levels of educational performance.*

Academic Achievement: ______

Social Adaptation/Behavior: ______

Prevocational and Vocational Skills: ______

Psychomotor Skills: ______

Self-Help Skills: ______

5. *Specific characteristic(s) of the student that indicate a communicative disorder.*

Characteristic	Source of Information

6. *Recommended duration of the SLH/LS program:* ______

7. *Title and language(s) of person(s) responsible for providing instruction:*

______ Fluent in English *(1)*( ) Spanish *(2)* ( )

______ Fluent in English *(1)*( ) Spanish *(2)* ( )

8. *Amount of time* *per* *week* *services are provided:* ______

9. *Goal(s) of treatment:* ______

10. Description of instructional program

SHORT TERM OBJECTIVE	INTERVENTION ACTIVITIES	LANGUAGE(s) OF INSTRUCTION	MATERIALS	TITLE OF INSTRUCTOR

PLEASE FILL OUT THIS QUESTIONNAIRE AND RETURN TO THE REGISTRATION DESK IN BOX MARKED "SURVEY OF SLH/LS PROFESSIONALS."

SURVEY OF SPEECH AND LANGUAGE SPECIALISTS

Sponsored by:
CALIFORNIA STATE DEPARTMENT OF EDUCATION
OFFICE OF SPECIAL EDUCATION

Conducted By:
BLOOMSBURY WEST, INC.

This survey will examine the strengths and weaknesses of present practices in the assessment, placement and remediation of limited and non-English speaking (LES/NES) Hispanic background children who demonstrate a possible language handicap.

Your suggestions for improving the present system will also be solicited.

1. Please name the county in which you work.______________________________

2. At which level do you work?

_____(1) County _____(2) District _____(3) School site

3. What grades do you serve? (Check all that apply.)

_____(1) K-3 _____(2) 4-6 _____(3) 7-9 _____(4) 10-12

4. What is your job title?____

5. Please check (using the appropriate language column[s]) all those people who routinely participate in the process of identifying Hispanic LES/NES students with possible language handicaps for referral and/or testing.

	Fluent in English	Fluent in Spanish
(a) Speech and Language Specialist	(1)_____	(2)_____
(b) SLH Specialist/Teacher	(1)_____	(2)_____
(c) Psychologist	(1)_____	(2)_____
(d) Regular Classroom Teacher	(1)_____	(2)_____
(e) Resource Teacher	(1)_____	(2)_____
(f) Aide	(1)_____	(2)_____
(g) Administrator	(1)_____	(2)_____
(h) Community Liaison	(1)_____	(2)_____
(i) Interpreter	(1)_____	(2)_____
(j) Other:__________________________	(1)_____	(2)_____

8. **Please rate the effectiveness of your program's ability to meet the needs of Hispanic LES/NES students in the following areas.**

	More Than Adequate	Adequate	Less Than Adequate
(a) Assessment Personnel	(3)____	(2)____	(1)____
(b) Assessment Tools and Procedures	(3)____	(2)____	(1)____
(c) Remedial Personnel	(3)____	(2)____	(1)____
(d) Remedial Program	(3)____	(2)____	(1)____
(e) Other: (Please specify)____________	(3)____	(2)____	(1)____
____________________________	(3)____	(2)____	(1)____

9. **Do you have any suggestions that would significantly improve your SLH/LS program in the areas specified below:**

(1) Assessment Personnel:________________________________

____

____

(2) Assessment Tools and Procedures:_______________________

____

____

(3) Placement:____

____

____

(4) Remedial Program:____________________________________

____

____

(5) Remedial Personnel:__________________________________

____

____

(6) Other (Please specify):_______________________________

____

____

10a. Have you ever felt that Hispanic LES/NES children are being inappropriately placed into SLH/LS programs?

_____(1) Yes _____(2) No _____(3) Other__________________________

b. If yes, what proportion of Hispanic LES/NES children do you think are inappropriately placed into SLH/LS programs?

_____(1) All _____(2) Most _____(3) Some _____(4) A Few

11a. Have you ever felt that there may be Hispanic LES/NES children needing SLH/LS assistance who are not receiving it?

_____(1) Yes _____(2) No _____(3) Other__________________________

b. If yes, what proportion of Hispanic LES/NES children needing SLH/LS assistance do you estimate do not receive it?

_____(1) All _____(2) Most _____(3) Some _____(4) A Few

12. In which of the following areas should the State of California upgrade or improve the present system with regard to Hispanic LES/NES children? Check all that apply and briefly state your suggestions for improvement.

(1) Assessment Procedures:______________________________

(2) Placement Procedures:______________________________

(3) Program Procedures:______________________________

(4) Technical Assistance:______________________________

(5) Other (Please specify):______________________________